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<210> 5156

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5156

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Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
      35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
      50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
      65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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<210> 5158
 <211> 82
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 <213> Homo sapiens

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 Thr His Arg Cys Ser Pro Ala Trp Leu Ser Trp Asp Leu Asn Leu Leu
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<210> 5159
 <211> 3233
 <212> DNA
 <213> Homo sapiens

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<210> 5160

<211> 849

<212> PRT

<213> Homo sapiens

<400> 5160

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				20				25					30		
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu

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Leu Ser Met Leu Ile Met Phe Leu Leu Gly Gly Val Ile Gln Met Glu
  65      70      75      80
His Arg His Arg Lys Lys Asp Thr Pro Val Gln Ala Ser Ser His His
      85      90      95
Leu Phe Val Gln Met Lys Ser Leu Met Cys Ser Asn Leu Gly Glu Glu
      100      105      110
Leu Glu Val Ile Phe Ser Leu Phe Asp Ser Lys Glu Asn Arg Pro Ile
      115      120      125
Ser Glu Arg Phe Phe Leu Arg Leu Asn Arg Asn Gly Leu Pro Lys Ala
      130      135      140
Pro Asp Lys Pro Glu Arg His Cys Ser Leu Phe Val Asp Leu Gly Ser
      145      150      155      160
Ser Glu Leu Arg Lys Asp Ile Tyr Ile Thr Val His Ile Ile Arg Ile
      165      170      175
Gly Arg Met Gly Ala Gly Glu Lys Lys Asn Ala Cys Ser Val Gln Tyr
      180      185      190
Arg Arg Pro Phe Gly Cys Ala Val Leu Ser Ile Ala Asp Leu Leu Thr
      195      200      205
Gly Glu Thr Lys Asp Asp Leu Ile Leu Lys Val Tyr Met Cys Asn Thr
      210      215      220
Glu Ser Glu Trp Tyr Gln Ile His Glu Asn Ile Ile Lys Lys Leu Asn
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      245      250      255
Gln Leu Leu His Gly Asp Ile Glu Gln Ile Arg Arg Glu Tyr Ser Ser
      260      265      270
Val Phe Ser His Gly Val Ser Ile Thr Arg Lys Leu Gly Phe Ser Asn
      275      280      285
Ile Ile Met Pro Gly Glu Met Arg Asn Asp Leu Tyr Ile Thr Ile Glu
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Arg Gly Glu Phe Glu Lys Gly Lys Ser Val Ala Arg Asn Val Glu
      305      310      315      320
Val Thr Met Phe Ile Val Asp Ser Ser Gly Gln Thr Leu Lys Asp Phe
      325      330      335
Ile Ser Phe Gly Ser Gly Glu Pro Pro Ala Ser Glu Tyr His Ser Phe
      340      345      350
Val Leu Tyr His Asn Asn Ser Pro Arg Trp Ser Glu Leu Leu Lys Leu
      355      360      365
Pro Ile Pro Val Asp Lys Phe Arg Gly Ala His Ile Arg Phe Glu Phe
      370      375      380
Arg His Cys Ser Thr Lys Glu Lys Gly Glu Lys Lys Leu Phe Gly Phe
      385      390      395      400
Ser Phe Val Pro Leu Met Gln Glu Asp Gly Arg Thr Leu Pro Asp Gly
      405      410      415
Thr His Glu Leu Ile Val His Lys Cys Glu Glu Asn Thr Asn Leu Gln
      420      425      430
Asp Thr Thr Arg Tyr Leu Lys Leu Pro Phe Ser Lys Gly Ile Phe Leu
      435      440      445
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Thr Ser Phe Leu Cys Ser Thr Lys Leu Thr Gln Asn Gly Asp Met Leu

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          500          505          510
Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys
          515          520          525
Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu
          530          535          540
Gln Asp Ser Lys Phe His His Phe Lys Pro Val Met Asp Thr Tyr Ile
545          550          555          560
Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val
          565          570          575
Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His
          580          585          590
Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val
          595          600          605
Gln Ser Arg Arg Leu Phe Ser Leu Ala Thr Gly Gly Gln Asn Glu Glu
          610          615          620
Glu Phe Arg Cys Cys Ile Gln Glu Leu Leu Met Ser Val Arg Phe Phe
625          630          635          640
Leu Ser Gln Glu Ser Lys Gly Ser Gly Ala Leu Ser Gln Ser Gln Ala
          645          650          655
Val Phe Leu Ser Ser Phe Pro Ala Val Tyr Ser Glu Leu Leu Lys Leu
          660          665          670
Phe Asp Val Arg Glu Val Ala Asn Leu Val Gln Asp Thr Leu Gly Ser
          675          680          685
Leu Pro Thr Ile Leu His Val Asp Asp Ser Leu Gln Ala Ile Lys Leu
          690          695          700
Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp
705          710          715          720
Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His
          725          730          735
Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn
          740          745          750
Val Phe Cys Leu Ile Lys Lys Asn Ser Ser Glu Lys Ser Val Leu Glu
          755          760          765
Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr
          770          775          780
Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg
785          790          795          800
Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser
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Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser
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<210> 5161
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<212> DNA
<213> Homo sapiens

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<211> 207

<212> PRT

<213> Homo sapiens

<400> 5162

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Leu	Val	Gln	Ala	Asn	Thr	Pro	Ala	Ser	Leu	Val	Gly	Leu	Arg	Phe	Gly
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Asp	Gln	Leu	Leu	Gln	Ile	Asp	Gly	Arg	Asp	Cys	Ala	Gly	Trp	Ser	Ser
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His	Lys	Ala	His	Gln	Val	Val	Lys	Lys	Ala	Ser	Gly	Asp	Lys	Ile	Val
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Thr	Ile	Ile	Pro	Ser	Val	Ile	Tyr	Glu	His	Met	Val	Lys	Lys	Leu	Pro
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<210> 5163

<211> 1187

<212> DNA

<213> Homo sapiens

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 720
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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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		20					25					30			
Arg	His	Trp	Ala	Trp	Ser	Gly	Asp	Thr	Phe	Ser	Gly	Gln	Phe	Val	Leu
		35				40					45				
Gly	Glu	Pro	Gln	Gly	Tyr	Gly	Val	Met	Glu	Tyr	Lys	Ala	Gly	Gly	Cys
	50					55					60				
Tyr	Glu	Gly	Glu	Val	Ser	His	Gly	Met	Arg	Glu	Gly	His	Gly	Phe	Leu
	65				70				75					80	
Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
			85					90						95	
Arg	His	Gly	Pro	Gly	Gln	Met	Leu	Phe	Gln	Asn	Gly	Asp	Lys	Tyr	Asp
		100					105					110			
Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
	115					120						125			
Ala	Asp	Gly	Ser	Thr	Tyr	Lys	Gly	Gln	Trp	His	Ser	Asp	Val	Phe	Ser

130 135 140
 Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu
 145 150 155 160
 Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu
 165 170 175
 Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn
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 Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu
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 Gln Gly Glu Met Thr
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 <210> 5165
 <211> 2370
 <212> DNA
 <213> Homo sapiens

 <400> 5165
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 180
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 2040
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 2160
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 2220
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 2280
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<210> 5166

<211> 521

<212> PRT

<213> Homo sapiens

<400> 5166

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			20					25				30				
Ala	Asp	Arg	Arg	Ser	Leu	Pro	Gly	Thr	Trp	Thr	Arg	Ser	Ser	Pro	Glu	
		35					40					45				
His	Thr	Thr	Ile	Leu	Arg	Gly	Gly	Val	Arg	Arg	Cys	Leu	Gln	Gln	Gln	
	50					55					60					
Cys	Glu	Gln	Thr	Val	Arg	Ile	Leu	His	Ala	Lys	Val	Ala	Gln	Lys	Ser	
65					70					75					80	
Tyr	Gly	Asn	Glu	Lys	Arg	Phe	Phe	Cys	Pro	Pro	Pro	Cys	Val	Tyr	Leu	
				85					90					95		
Ser	Gly	Pro	Gly	Trp	Arg	Val	Lys	Pro	Gly	Gln	Asp	Gln	Ala	His	Gln	
			100					105					110			
Ala	Gly	Glu	Thr	Gly	Pro	Thr	Val	Cys	Gly	Tyr	Met	Gly	Leu	Asp	Ser	
		115					120					125				
Ala	Ser	Gly	Ser	Ala	Thr	Glu	Thr	Gln	Lys	Leu	Asn	Phe	Glu	Gln	Gln	
	130					135					140					
Pro	Asp	Ser	Arg	Glu	Phe	Gly	Cys	Ala	Lys	Thr	Leu	Tyr	Ile	Ser	Asp	
145					150					155					160	
Ala	Asp	Lys	Arg	Lys	His	Phe	Arg	Leu	Val	Leu	Arg	Leu	Val	Leu	Arg	
				165					170					175		
Gly	Gly	Arg	Glu	Leu	Gly	Thr	Phe	His	Ser	Arg	Leu	Ile	Lys	Val	Ile	
			180					185					190			
Ser	Lys	Pro	Ser	Gln	Lys	Lys	Gln	Ser	Leu	Lys	Asn	Thr	Asp	Leu	Cys	
	195						200					205				
Ile	Ser	Ser	Gly	Ser	Lys	Val	Ser	Leu	Phe	Asn	Arg	Leu	Arg	Ser	Gln	
	210					215					220					
Thr	Val	Ser	Thr	Arg	Tyr	Leu	Ser	Val	Glu	Asp	Gly	Ala	Phe	Val	Ala	
225					230					235					240	
Ser	Ala	Arg	Gln	Trp	Ala	Ala	Phe	Thr	Leu	His	Leu	Ala	Asp	Gly	His	
				245					250					255		
Ser	Ala	Gln	Gly	Asp	Phe	Pro	Pro	Arg	Glu	Gly	Tyr	Val	Arg	Tyr	Gly	
			260					265					270			
Ser	Leu	Val	Gln	Leu	Val	Cys	Thr	Val	Thr	Gly	Ile	Thr	Leu	Pro	Pro	
	275						280					285				
Met	Ile	Ile	Arg	Lys	Val	Ala	Lys	Gln	Cys	Ala	Leu	Leu	Asp	Val	Asp	
	290					295					300					
Glu	Pro	Ile	Ser	Gln	Leu	His	Lys	Cys	Ala	Phe	Gln	Phe	Pro	Gly	Ser	
305					310					315					320	
Pro	Pro	Gly	Gly	Gly	Gly	Thr	Tyr	Leu	Cys	Leu	Ala	Thr	Glu	Lys	Val	
				325					330					335		
Val	Gln	Phe	Gln	Ala	Ser	Pro	Cys	Pro	Lys	Glu	Ala	Asn	Arg	Ala	Leu	
			340					345					350			
Leu	Asn	Asp	Ser	Ser	Cys	Trp	Thr	Ile	Ile	Gly	Thr	Glu	Ser	Val	Glu	
	355						360					365				

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      450      455      460
Arg Ala Asp Gly Leu Phe Tyr Pro Ser Ala Phe Ser Phe Thr Tyr Thr
465      470      475      480
Pro Glu Tyr Ser Val Arg Pro Gly His Pro Gly Val Pro Glu Pro Ala
      485      490      495
Thr Asp Ala Asp Ala Leu Leu Glu Ser Ile His Gln Glu Phe Thr Arg
      500      505      510
Thr Asn Phe His Leu Phe Ile Gln Thr
      515      520

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<210> 5167
 <211> 878
 <212> DNA
 <213> Homo sapiens

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<400> 5167
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120
ttggactgtg tgtgacagac acaatatccc aggtctatga gaatgtcaat acagacttca
180
cgtgggaaat ggtgaggcaa taaggatcgt ttcccttgat gaaatggagc ttgcagaaga
240
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300
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420
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480
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720
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780
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878

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<210> 5168
 <211> 199
 <212> PRT
 <213> Homo sapiens

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<400> 5168
Met Pro Gly Met Arg Leu Val Cys Arg Leu Ala His Gly His Phe Pro

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	20	25	30
Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu			
	35	40	45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln			
	50	55	60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu			
65	70	75	80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser			
	85	90	95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys			
	100	105	110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His			
	115	120	125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys			
	130	135	140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu			
145	150	155	160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu			
	165	170	175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu			
	180	185	190
Ile Ala Ser Pro Phe Pro Thr			
	195		

<210> 5169

<211> 609

<212> DNA

<213> Homo sapiens

<400> 5169

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120
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240
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420
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480
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609

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<210> 5170
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 5170
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 20 25 30
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe
 35 40 45
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg
 50 55 60
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp
 65 70 75 80
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp
 85 90 95
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys
 100 105 110
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr
 115 120 125
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp
 130 135 140
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe
 145 150 155 160
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln
 165 170 175
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser
 180 185 190
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His
 195 200

<210> 5171
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 5171
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 cacattcttt cttgtggacc accaaattga aggctttctt gtaattcaca agcagcagct
 180
 ctccagcadc tctccgtagc ctgggtgaag tcccagaagc tgggtgtgcat cattttccaa
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 300
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 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga
480
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttcctgaaaa
540
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600
ataagtcttc aggcgctcct agaagagtcc cagcccaagg ctcgattaag gaccacactg
660
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720
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780
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1620
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1920
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2040

aaaaaaaaaa aaaaaaaaaa
2060

<210> 5172
<211> 104
<212> PRT
<213> Homo sapiens

<400> 5172
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Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala
20 25 30
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
35 40 45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
50 55 60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
65 70 75 80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
85 90 95
Arg Asp Pro Gly Val Leu Ile Ala
100

<210> 5173
<211> 557
<212> DNA
<213> Homo sapiens

<400> 5173
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120
tcacagtgtg acaggagac aaatagacct gtcagtagat aacatgaaaa taattggact
180
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240
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300
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360
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420
acagatcgcg gttctcttct cggacctccc gagaagcgct gtcgggatat ttggtgctcc
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540
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557

<210> 5174
<211> 93
<212> PRT

<213> Homo sapiens

<400> 5174

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Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
 20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
 35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
 50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
 65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
           85           90

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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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120
agggctgccc aacaccaggt agggcagcaa cgcccacgcc ctgcccgggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtagagag tgcatgccac
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cccaggttg ttccgaaggc cennnnnncc nc
272

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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
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Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
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Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
 35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
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<211> 637

<212> DNA

<213> Homo sapiens

<400> 5177

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<212> PRT

<213> Homo sapiens

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Asn	Ser	Gln	Ile	Arg	Ser	Arg	Ser	Ser	Ser	Ser	Ser	Gly	Gly	Gly	
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Leu	Leu	Pro	Tyr	Pro	Arg	Arg	Arg	Pro	Pro	His	Ser	Ala	Arg	Gly	Gly
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Gly	Ser	Gly	Gly	Gly	Gly	Gly	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Gln
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<212> DNA

<213> Homo sapiens

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<211> 444

<212> PRT

<213> Homo sapiens

<400> 5180

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 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro
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 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val
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 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly
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 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp
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 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe
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 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met
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 165 170 175
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 180 185 190
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser
 195 200 205
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 260 265 270
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<212> DNA
<213> Homo sapiens
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<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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<210> 5184

<211> 395

<212> PRT

<213> Homo sapiens

<400> 5184

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			20					25						30	
Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
		35					40					45			
Arg	Gln	Ser	Ala	Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu

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Glu Arg Pro Phe Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg
      85      90      95
Met Lys Gly Gly Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val
      100      105      110
Ala Gln Ser Ile Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn
      115      120      125
Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
      130      135      140
Val Leu Arg Arg Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala
145      150      155      160
Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe
      165      170      175
Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr
      180      185      190
Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser
      195      200      205
Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu
      210      215      220
Arg Glu Leu Phe Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser
225      230      235      240
Asn Phe Phe Tyr Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe
      245      250      255
Gly Ala Thr Arg Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln
      260      265      270
Ile Ile Arg Ala Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys
      275      280      285
Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu
      290      295      300
Asp Ala His Leu Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser
305      310      315      320
Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
      325      330      335
Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu
      340      345      350
Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
      355      360      365
Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
      370      375      380
Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln
385      390      395

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<210> 5185

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 5185

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120

cggattccca tgagaaactc tctggatcta gttcctctac gtcacatgag tgtgcaaaca
180
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240
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600
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660
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960
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1380
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1560
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1657

<210> 5186

<211> 243
 <212> PRT
 <213> Homo sapiens

<400> 5186
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 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro
 35 40 45
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50 55 60
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65 70 75 80
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85 90 95
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
 100 105 110
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
 115 120 125
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
 130 135 140
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
 145 150 155 160
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
 165 170 175
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
 180 185 190
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
 195 200 205
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
 210 215 220
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu
 225 230 235 240
 Pro His Ser

<210> 5187
 <211> 1712
 <212> DNA
 <213> Homo sapiens

<400> 5187
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 180
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 240
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 300

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1560
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1620
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1680
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1712

<210> 5188
<211> 489
<212> PRT
<213> Homo sapiens

<400> 5188

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Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
 35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
 50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
 65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
 85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
100           105           110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
115           120           125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
130           135           140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
145           150           155           160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
165           170           175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
180           185           190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
195           200           205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
210           215           220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225           230           235           240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
245           250           255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Lys Arg
260           265           270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
275           280           285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
290           295           300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
305           310           315           320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
325           330           335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
340           345           350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
355           360           365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
370           375           380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385           390           395           400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
405           410           415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
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Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
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Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
465          470          475          480
Leu Phe Gly Asn Tyr Arg Pro His Leu
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<210> 5189
 <211> 323
 <212> DNA
 <213> Homo sapiens

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<400> 5189
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120
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180
gaagttaatc attccttaat tcctgtttat ttatatttca tttttgcttt ctttttactc
240
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300
gacaaacatc catgtgctgc taa
323

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<210> 5190
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 5190
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Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
          20          25          30
Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
          35          40          45
Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
          50          55          60
Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
          65          70          75          80
Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His
          85          90          95
Pro Cys Ala Ala
          100

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<210> 5191
 <211> 1632
 <212> DNA
 <213> Homo sapiens

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120
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180
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<210> 5192
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 5192
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 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val
 35 40 45
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe
 50 55 60
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro
 65 70 75 80
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met
 85 90 95
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser
 100 105 110
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys
 115 120 125
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys
 130 135 140
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys
 145 150 155 160
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala
 165 170 175
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His
 180 185 190
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu
 195 200 205
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp
 210 215 220
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn
 225 230 235 240
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn
 245 250 255
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly
 260 265 270
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu
 275 280 285
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro
 290 295 300
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro
 305 310 315 320
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys
 325 330 335
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

<212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 5196
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 Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
 50 55 60
 Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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          100         105         110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
          115         120         125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
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Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
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His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
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Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
          195         200         205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
          210         215         220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
          225         230         235         240
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<211> 1045

<212> DNA

<213> Homo sapiens

<400> 5197

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<212> PRT

<213> Homo sapiens

<400> 5198

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Lys	Pro	Pro	Pro	Arg	Gln	Lys	Phe	Ile	Gln	Ser	Glu	Met	Ser	Glu	Ala
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Thr	Pro	Thr	Thr	Phe	Pro	Glu	Glu	Ala	Pro	Thr	Val	Ser	Pro	Ala	Val
225					230					235				240	
Ala	Gln	Ser	Asn	Ser	Ser	Glu	Glu	Glu	Ala	Arg	Glu	Ala	Gly	Ser	Pro
			245						250					255	
Ala	Gln	Glu	Phe	Lys	Tyr	Gln	Lys	Ser	Leu	Pro	Pro	Arg	Phe	Gln	Arg

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<211> 358

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Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro
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Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val
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Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu
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Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala
100           105           110
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val
115           120           125
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe
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Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln
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Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn
165           170           175
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly
180           185           190
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys
195           200           205
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe
210           215           220
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His
225           230           235           240
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245           250           255
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355

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<211> 108

<212> PRT

<213> Homo sapiens

<400> 5202

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Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
      35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
      50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
      85           90           95
Ile Phe Cys Phe Phe Leu Ser Phe Phe Phe Leu Arg
      100           105

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<210> 5203

<211> 1863

<212> DNA

<213> Homo sapiens

<400> 5203

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600
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720
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900

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 1020
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 1200
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<210> 5204

<211> 249

<212> PRT

<213> Homo sapiens

<400> 5204

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Asp	Leu	Val	Glu	Tyr	Phe	Lys	Ala	Tyr	Ile	Lys	Ile	Tyr	Gln	Gly	Glu
			20					25					30		
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
		35				40					45				
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
	50					55				60					
Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65				70					75				80		
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
			85					90					95		
Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp

	100		105		110										
Gln	Leu	Glu	Ala	Glu	Ile	Glu	Glu	Thr	Tyr	Ala	Asn	Phe	Ile	Lys	His
	115		120		125										
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	130		135		140										
Phe	Ala	Val	Met	Phe	Ala	Met	Tyr	Ile	Ile	Ser	Gly	Leu	Thr	Gly	Phe
145			150		155					160					
Ile	Gly	Leu	Asn	Ser	Ile	Ala	Val	Leu	Cys	Asn	Leu	Val	Met	Gly	Leu
	165		170		175										
Ala	Leu	Ile	Phe	Leu	Cys	Thr	Trp	Ala	Tyr	Val	Lys	Tyr	Ser	Gly	Glu
	180		185		190										
Phe	Arg	Glu	Ile	Gly	Thr	Val	Ile	Asp	Gln	Ile	Ala	Glu	Thr	Leu	Trp
	195		200		205										
Glu	Gln	Val	Leu	Lys	Pro	Leu	Gly	Asp	Asn	Leu	Met	Glu	Glu	Asn	Ile
	210		215		220										
Arg	Gln	Ser	Val	Thr	Asn	Ser	Ile	Lys	Ala	Gly	Leu	Thr	Asp	Gln	Val
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<210> 5205

<211> 2011

<212> DNA

<213> Homo sapiens

<400> 5205

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 180
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 240
 cctggaaaagg aggagctcaa cattgtgaag ttgtatgctc acaaagggga tgcagtgact
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 gtgtacacgc tgtggtccta tctgatctt ctgccaacct ttacaacatg gcctctggtg
 420
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 840

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 1980
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 2011

<210> 5206

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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Val	Ala	Lys	Ala	Phe	Arg	Val	Lys	Ser	Asn	Thr	Ala	Ile	Lys	Gly	Ser
		20						25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
		35					40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

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      50      55      60
Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val Tyr Val
65      70      75      80
Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
      85      90      95
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
      100      105      110
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
      115      120      125
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
      130      135      140
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
145      150      155      160
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
      165      170      175
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
      180      185      190
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
      195      200      205
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
      210      215      220
Thr Leu Gln Gly Asp Met Arg His Met Thr Leu Glu Gly Glu Glu Glu
225      230      235      240
Asn Gly Glu Val His Gln Gly Thr
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<210> 5207

<211> 594

<212> DNA

<213> Homo sapiens

<400> 5207

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480
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594

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<210> 5208

<211> 136
 <212> PRT
 <213> Homo sapiens

<400> 5208
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 Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val
 20 25 30
 Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
 35 40 45
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
 50 55 60
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
 65 70 75 80
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
 85 90 95
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
 100 105 110
 Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Val Gly Asn
 115 120 125
 Lys Arg Asp Leu Gln Arg Gly Arg
 130 135

<210> 5209
 <211> 1592
 <212> DNA
 <213> Homo sapiens

<400> 5209
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 240
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 720

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<210> 5210

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5210

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          20            25            30
Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
      35            40            45
Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
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Val Glu Glu Leu Arg Trp Arg Gln Arg Arg Ala Ala Lys Gly Ala Arg
65          70          75          80
Ser Val Glu Glu Glu
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<210> 5211

<211> 602

<212> DNA

<213> Homo sapiens

<400> 5211
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<210> 5212
<211> 104
<212> PRT
<213> Homo sapiens

<400> 5212
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Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser
35 40 45
Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu
50 55 60
Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr
65 70 75 80
Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr
85 90 95
Cys Asp Ala Pro Thr Gln Lys Gln
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<210> 5213
<211> 4387
<212> DNA
<213> Homo sapiens

<400> 5213
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<212> PRT

<213> Homo sapiens

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 3900
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 4020
 tgtgagcgtg tgtgtgagtg aggcgtgtgt gtgtgtcttt cctaggaccc accataccct
 4080
 gtgtatgtat gcattgtttt gtaaaaagga agaaaatgga aaaaaatctg aacaataaat
 4140
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 4189

<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

Met	Ala	Gly	Asp	Arg	Ala	Arg	Trp	Trp	Thr	Met	Ala	Trp	Ser	Thr	Gly
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Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
		20					25					30			
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35				40					45				
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
		50				55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
				70						75				80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
			85					90					95		
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
			100					105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

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      115      120      125
Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu
      130      135      140
Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys
      145      150      155      160
Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu
      165      170      175
Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys
      180      185      190
Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly
      195      200      205
Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser
      210      215      220
Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys
      225      230      235      240
Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro
      245      250      255
Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn
      260      265      270
Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Gln Ser Lys Ala Ser
      275      280      285
Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln
      290      295      300
Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg
      305      310      315      320
His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val
      325      330      335
Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly
      340      345      350
Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg
      355      360      365
Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu
      370      375      380
Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly
      385      390      395      400
Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu
      405      410      415
Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His
      420      425      430
Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu
      435      440      445
Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys
      450      455      460
Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His
      465      470      475      480
Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser
      485      490      495
Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val
      500      505      510
Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro
      515      520      525
Ser Glu Gln Leu Val Glu Glu Glu Glu Pro Met Asn Leu
      530      535      540

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<210> 5219
<211> 1212
<212> DNA
<213> Homo sapiens

<400> 5219
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ctcggccgggt cccgagtcgg actccctcaa gggtgacgcg agctctgccc ttttaaccgga
120
aacgtctccc tgctcacccc acccccgcg c agacgcagtg ctgagcacac agctaccgga
180
caaagagtga cgcccggagc tggagttatg gcggctacgg agccgatcct ggccggccact
240
gggagtcctcg cgccgggtgcc accggagaaa ctggaaggag ccggttcgag ctccagccct
300
gagcgttaact gtgtgggctc ctgcctgcca gaggcctcac cgcctgcccc tgagccttcc
360
agtcccaacg ccgcggtccc tgaagccatc cctacgcccc gagctgcggc ctccgcggcc
420
ctggagctgc ctctcgggcc cgcacccgtg agcgtagcgc ctccagccga agctgaagcg
480
cgctccacac caggccccgc cggctctaga ctccggtccc agacgttccg ccagcgttcc
540
cggcagttcc gctaccagga tggggcgggt ccccgggagg ctttccggca gctcggggag
600
ctgtcccgcc agtggctgcg gcctgacatc cgcaccaagg agcagatcgt ggagatgctg
660
gtgcaagagc agctgctcgc catcctgccc gagggcgctc gggcccggcg gatccgccc
720
cgcacggatg tgcgcatcac tggctgagcg gtggagctgc gggcgccag ggccgggcgc
780
tctgtgcgga ctggggccat gatcgggccc gggggcctga gcctgggacc ccaccccg
840
ttaatgaaaa atgagttttg gcagcgccctg tggctctggtg tgtctcttcc attcgttctt
900
attgggttta ttttaccagg cctgtttcct accgccttcc tggctggtgg cgaaacgaag
960
ttgggagtcg gtaacaataa ggccttcggt ggctatagtg ggatcttttag atgttgactg
1020
aacctagggt atccctctac cacacatggg aagtttttca cctgggctcc caaggaccca
1080
cttgggttcc ttacacgcaa aatagctggc tctattaaat gctcacttaa ctggctacct
1140
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1200
cnagttactg gg
1212

<210> 5220
<211> 179
<212> PRT
<213> Homo sapiens

<400> 5220

Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala
 1 5 10 15
 Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
 20 25 30
 Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
 35 40 45
 Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50 55 60
 Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65 70 75 80
 Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85 90 95
 Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
 100 105 110
 Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
 115 120 125
 Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
 130 135 140
 Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
 145 150 155 160
 Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
 165 170 175
 Ile Thr Gly

<210> 5221

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5221

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 gcttttggag acacgcttca catacactac acgggaagct tggtagatgg acgtattatt
 120
 gacacctccc tgaccagaga ccctctggtt atagaacttg gccaaaagca ggtgattcca
 180
 ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct
 240
 tctcacttgg cctatggaaa acggggattt ccaccatctg tcccaggac taaagacaac
 300
 ctgatgaggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
 360
 ttggggcaca tgggtctgct gcctgtgcca ccacctttcc cagaacactg gacttctttc
 420
 ctgccctttt ctacaactct acgctgtgtc agctgtacag ccacccccca ccccttcctt
 480
 tcagccacca tctgtcc
 497

<210> 5222

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5222

Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys
 1 5 10 15
 Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
 20 25 30
 Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35 40 45
 Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50 55 60
 Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65 70 75 80
 Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85 90 95
 Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
 100 105 110

<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

ngcaccattt tcgacaatga agccaaagac gtggagagag aagtttgctt tattgatatt
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 120
 tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
 180
 atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
 240
 gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
 300
 gcatgggttg atgagtggtg tgatatgaca atggatgatg ttcgggaata cgagaaaaac
 360
 atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctcccctgt ggatgacata
 420
 gagagtcatg cccaaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
 480
 ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
 540
 tccccctgct gccttcttcc gtccgcagtg cgccttctag tgctccatcc acccctctct
 600
 ccacagacgc acccgaattt ctgtccgttc ccaaaga
 637

<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

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      1             5             10             15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20             25             30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35             40             45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50             55             60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65             70             75             80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85             90             95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100            105            110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115            120            125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130            135            140
Gln Thr Ser Thr
145

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<210> 5225

<211> 394

<212> DNA

<213> Homo sapiens

<400> 5225

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acgcgtgaag gggctgggggt gggcaatcag ggaggacttc ctggaggcgg cagctgagggc
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tggggcagag aaggaccacag ggcactggaa ggggaaggag aaacgtaagc agagtcttgg
120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cggtggggtc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5226

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Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1             5             10             15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20             25             30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35             40             45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70				75					80	
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
			100					105					110		
Pro															

<210> 5227

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 5227

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 120
 ggatgacggc catgccggca ggcaccgtgt agaaggccag tgtggtaacc ttacctgtct
 180
 acctgaactt caccctgtca gacctcatct tcaccgtgga cttcgaaatt gctacaaagg
 240
 aggatcctcg cagcttctac gagcgggggtg tcgcagtcct gtgcacagag taaacttttc
 300
 tagctgcccc tttctgtaat agtgaaagtt ggtatttaac atttattcat ttttaaaata
 360
 tttggaaggt ctgagcttgt gaaaagaaag tgggtgggtc gaggttgag gaagctgaat
 420
 ggaatctgac ggttgggagt ggtggaaatt ggaaggatac caggaggat ttgggaaaac
 480
 cttacggagc tgcctctgct tactggagca gaagaaatag acctaat ttcctcaaggga
 540
 attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc
 600
 aaactagaag ctgtcagtga caataacttg gaattagtca atgaaattct tgaagacatc
 660
 actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct
 720
 cacttccagt cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct
 780
 ccatcaagcc cagaaatgaa taattcttct atcaataatc agttattacc agtagatgcc
 840
 attcgtattc ttggtattca caaaagagct ggggaaccac tgggtgtgac atttaggggt
 900
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 960
 ctacttcatg tgggagatat aattaaagaa gtcaatggcc atgaggttgg aaataatcca
 1020
 aagggaattac aagaattact gaaaaatatt agtggaagtg tcaccctaaa aatcttacca
 1080
 agttatagag ataccattac tcctcaacag gtatttgtga agtgtcattt tgattataat
 1140

ccatacaatg acaacctaata accttgcaaa gaagcaggat tgaagttttc caaaggagag
 1200
 attcttcaga ttgtaaatag agaagatcca aattgggtggc aggctagcca tgtaaaagag
 1260
 ggaggaagcg ctggtctcat tccaagccag ttcctggaag agaagagaaa ggcatttggt
 1320
 agaagagact gggacaattc aggacctttt tgtggaacta taagtagcaa aaaaaagaaa
 1380
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcatgaaat ccagatatat
 1440
 gaggaggtag ccaaaatgcc tcccttccag agaaaaacat tagtattgat aggagctcaa
 1500
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 1560
 actacggtgc catttacttc acggaaacca aggggaagatg aaaaagatgg ccaggcatat
 1620
 aagtttggtg cacgatctga gatggaagca gatattaaag ctggaaagta tttggaacat
 1680
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 1740
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 1860
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 1920
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactatct tgatttgatc
 1980
 atcataaatg ataatctaga caaagccttt gaaaaactgc aaactgccat agagaaactg
 2040
 agaatggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taagggttaac
 2100
 aatgaaaatt aaactcttaa aaagtgactg caacaaataa accttctact gagaaaatac
 2160
 atcacagata gaagattatc tgctaagtcc aggcattttt atggtgtaga ttgaaataat
 2220
 agtacacttc tgaattttta tataaaatgt ggttggaagg tgtactaata tataatttat
 2280
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 2340
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 2366

<210> 5228

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5228

Arg	Leu	Gly	Val	Val	Glu	Ile	Gly	Arg	Ile	Pro	Gly	Gly	Ile	Trp	Glu
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Asn	Leu	Thr	Glu	Leu	Pro	Ser	Ser	Thr	Gly	Ala	Glu	Glu	Ile	Asp	Leu
			20					25					30		
Ile	Phe	Leu	Lys	Gly	Ile	Met	Glu	Asn	Pro	Ile	Val	Lys	Ser	Leu	Ala

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      35      40      45
Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp
  50      55      60
Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu
  65      70      75      80
Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu
      85      90      95
Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys
      100      105      110
Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile
      115      120      125
Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His
      130      135      140
Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn
      145      150      155      160
Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln
      165      170      175
Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu
      180      185      190
Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser
      195      200      205
Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr
      210      215      220
Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn
      225      230      235      240
Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly
      245      250      255
Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala
      260      265      270
Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe
      275      280      285
Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser
      290      295      300
Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Lys Met Met
      305      310      315      320
Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile
      325      330      335
Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val
      340      345      350
Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe
      355      360      365
Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser
      370      375      380
Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val
      385      390      395      400
Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu
      405      410      415
His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile
      420      425      430
Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro
      435      440      445
Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val
      450      455      460
Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala

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465		470		475		480									
Val	Val	Asp	Ala	Gly	Ile	Thr	Thr	Lys	Leu	Leu	Thr	Asp	Ser	Asp	Leu
		485						490						495	
Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
		500						505						510	
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515					520					525			
Lys	Leu	Gln	Thr	Ala	Ile	Glu	Lys	Leu	Arg	Met	Glu	Pro	Gln	Trp	Val
		530				535						540			
Pro	Ile	Ser	Trp	Val	Tyr										
545					550										

<210> 5229

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

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acgcgtgtgc tgtggttaca tccgtggaac agacagacag cagctgcccc tgcaaatgtc
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agcgccagcc cagtcaaaag agcttgaaac ctaccaagcc ggaggactgt gctgtgcctc
120
tctcgcccac attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc
180
aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa
240
aggaatgaaa ggatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat
300
gtaaccacag cacacgcgtg gtcacaggta ctagtgtgat aaatgcttgt tacatgaagg
360
cgtgaacagg gatgagaaga gacttcctgg agaaacaaaa ggactaacia tcaggaaggg
420
gaggtgatcg gggcaggagt aaagtggaca cctcagcaaa gccattcgct gtgatctctg
480
attgtgcagt gtcattgcct gtcaccagag cccctcgtg tttgatgttg gccaatgccg
540
ccagcatgat ctagcaggcc aaatcctaata ctaccattct ctgacaccag ctgggccctc
600
ggggctctcc acccgatgtc cccattctc cccactggc cccccccaca ggctctcggc
660
aaaggaccgt gggaggcacc tgtgacactg cccttttcct gtgcagctgt tttcttctt
720
cattcttttc actcctcgtt actctttttt ttttactct cagcccacac aaaactagga
780
actttgttat tctacttatt tttctgtact ctgtctgttt gcacacagat ggatatctga
840
gagccagcga actttcttta cctcctagta tcatttcattg aaaattagta gcacctgcac
900
aatggggcct tggagacagg aataaaagga aaaatctgga atggaatcac atgacgcaac
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1020
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1031

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<210> 5230
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 5230
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 Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe
 20 25 30
 Leu Val Leu Cys Gly Leu Arg Val Lys Lys Lys Arg Val Thr Arg Ser
 35 40 45
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
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 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
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 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
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 Cys Gln Arg Met Val Asp
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 <212> DNA
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<210> 5232
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<400> 5232
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 35 40 45
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
 50 55 60
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
 65 70 75 80
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
 85 90 95
 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
 100 105 110
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
 115 120 125
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
 130 135 140
 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
 145 150 155 160
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
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<210> 5233
 <211> 2801
 <212> DNA
 <213> Homo sapiens

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<210> 5234

<211> 57

<212> PRT

<213> Homo sapiens

<400> 5234

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		20					25					30			
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<210> 5235

<211> 3017

<212> DNA

<213> Homo sapiens

<400> 5235

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<210> 5236

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5236

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			20					25					30					
Pro	Pro	Thr	Trp	Glu	Ser	Pro	Gly	Asp	Asp	Ala	Ser	Leu	Glu	His	Glu			
		35					40					45						
Ala	Glu	Met	Asp	Leu	Gly	Thr	Pro	Thr	Tyr	Asp	Glu	Asn	Pro	Met	Lys			
		50				55					60							
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Ala	Lys	Lys	Ser	Lys	Glu	Val	Phe	Arg	Lys	Glu	Met	Ser	Gln	Phe	Ile			
			85					90						95				
Val	Gln	Cys	Leu	Asn	Pro	Tyr	Arg	Lys	Pro	Asp	Cys	Lys	Val	Gly	Arg			
			100					105					110					
Ile	Thr	Thr	Thr	Glu	Asp	Phe	Lys	His	Leu	Ala	Arg	Lys	Leu	Thr	His			
		115				120						125						
Gly	Val	Met	Asn	Lys	Glu	Leu	Lys	Tyr	Cys	Lys	Asn	Pro	Glu	Asp	Leu			
		130				135					140							
Glu	Cys	Asn	Glu	Asn	Val	Lys	His	Lys	Thr	Lys	Glu	Tyr	Ile	Lys	Lys			
145				150						155					160			
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Leu Glu

<210> 5237

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 5237

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720

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<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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			20					25				30			
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp	Asp
		35					40				45				
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly	Ile
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Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
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Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
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<210> 5239
<211> 2061
<212> DNA
<213> Homo sapiens

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 ggcttaaggg tcggaggtgg atcttcggga ctgggctccg ccatggcttc cagcatcgcc
 1860
 ccttccccctc ctcccggtcc ggccgcccc tccccggagc cggggatccc ggtgccgctt
 1920
 ctagtgtctg atgtccccc tgcttcgtc cacagaagtg tccgcctcag cccggttgag
 1980
 actcgagtcc gctagccgct gccgccacct ccctctacca ctgcctcccg cactccccga
 2040
 ccggggcccc tcccccgcg g
 2061

<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

Met	Met	Ser	Ser	Ser	Met	Thr	Arg	Ile	Ser	Pro	Ser	Leu	Glu	Leu	Ala
1				5					10					15	
Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55					60				
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70				75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
			85					90					95		
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
		100					105					110			
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
	115					120					125				
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
	130				135					140					
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145				150					155					160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
		165						170					175		
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
	180					185					190				
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

195 200 205
 Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly
 210 215 220
 Pro Ala
 225

<210> 5241
 <211> 461
 <212> DNA
 <213> Homo sapiens

<400> 5241
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 120
 cccaggtg atccggagcc ctcttcaccc ccgtccaggg ccgtttgcac tgctcccggc
 180
 atcggcacac cttgttctgg ttgtgctggg acggcagcgc cccgtgaggt cagaggggtg
 240
 ctgtcacatc tgccaccagc tgggtctccc tggagatttc agtgggtcgg tgcttcgctt
 300
 ctcacctggc cagctctgag ttcagcctct cgcctgtggg gaccctgca tcctggcggc
 360
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 420
 ctgagccagg cccgcccgtg gtgccgggag ttcccacgcg g
 461

<210> 5242
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 5242
 Met Asp Ala Phe Ile Thr Phe Val Pro Leu Arg Ala Ser Pro Ser Ile
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 Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser
 20 25 30
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val
 35 40 45
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr
 50 55 60
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser
 65 70 75 80
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp
 85 90 95
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly
 100 105 110
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val
 115 120 125
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe
 130 135 140
 Pro Arg

145

<210> 5243

<211> 344

<212> DNA

<213> Homo sapiens

<400> 5243

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 tggctggacc ttacagacga gccatttggc cagaaggtaa ctgtggaccc tgacaactca
 120
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaacccaga
 180
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttggttt
 240
 agtttgccgc gagtcgagat catttccaac aattcaatcc aagcagctct taacccaact
 300
 ggcgtatatg ctccctctgg ttactcctac cgctgccaac gcgt
 344

<210> 5244

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5244

Xaa	Ile	Pro	Cys	Ile	Leu	Phe	Trp	Ala	Lys	Arg	Ile	Met	Ile	Lys	Phe
1				5					10					15	
Lys	Asn	Gln	Thr	Trp	Leu	Asp	Leu	Thr	Asp	Glu	Pro	Phe	Gly	Gln	Lys
			20					25					30		
Val	Thr	Val	Asp	Pro	Asp	Asn	Ser	Asn	Cys	Ser	Glu	Glu	Ser	Ala	Arg
		35					40				45				
Leu	Ser	Leu	Lys	Leu	Gly	Asp	Ala	Gly	Asn	Pro	Arg	Ser	Leu	Ala	Ile
	50				55				60						
Arg	Phe	Ile	Leu	Thr	Asn	Tyr	Asn	Lys	Leu	Ser	Ile	Gln	Ser	Trp	Phe
65				70				75					80		
Ser	Leu	Arg	Arg	Val	Glu	Ile	Ile	Ser	Asn	Asn	Ser	Ile	Gln	Ala	Val
		85						90				95			
Phe	Asn	Pro	Thr	Gly	Val	Tyr	Ala	Pro	Ser	Gly	Tyr	Ser	Tyr	Arg	Cys
		100						105					110		

Gln Arg

<210> 5245

<211> 483

<212> DNA

<213> Homo sapiens

<400> 5245

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 ctccggcccg ctaagcccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caacccaagg agtgaggttt gagtcctgct ggccggccct gatgaaggat
 240
 gctcatggag tggatgctgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag
 300
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt
 360
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg
 420
 aacaagctga agctggtgca ctcaaactg gaagatgacc ctgaggagat ccgatggaa
 480
 ttc
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
		35					40				45				
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
	50				55					60					
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65				70					75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
			85					90					95		
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
		100					105					110			
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
		115				120						125			
Met	Glu	Phe													
		130													

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 120
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caacccaagg agtgaggatc ctagaatttg agaaccgcga tggtaccagc
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt
300
gagtcctgct ggccggccct gatgaaggat gtcctggag tggatgacgt cttcaatgct
360
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg
420
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat
480
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctgggtgca ctcaaacctg
540
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac
600
tccatgtctg agagcagaga caggaggag atgtcaatta tgacctagcc agccttcacc
660
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat
720
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa
780
ggcacctgtc acacagggcg ttcaactcaga ccatctgtgc tctgccctga gttcagttga
840
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa
900
tggagggtatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg
960
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa
1004

<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
			35				40					45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
		50				55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70					75				80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
				85				90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
			100					105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
		115				120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
		130				135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145					150					155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175
 Asp Arg Glu Glu Met Ser Ile Met Thr
 180 185

<210> 5249
 <211> 653
 <212> DNA
 <213> Homo sapiens

<400> 5249
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 taccggggct ggctagtcat gggggagccc agtagagagg agtataaaat ccagtccttt
 120
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg
 180
 gagaaagtgg ccaatgtgat tgtggacat tctctgcagg actgtgtgtt cagcaaggaa
 240
 gcaggacgca tgtgtctacgc catcattcag gcagagagta aacaagcagg ccagagtgtc
 300
 ttccgacgtg gactcctcaa ccggctgcag caggagtacc aggctcggga gcagctgcga
 360
 gcacgctccc tgcagggctg ggtctgctat gtcaccttta tctgcaacat ctttgactac
 420
 ctgaggggtga acaacatgcc catgatggcc ctggtgaacc ctgtctatga ctgcctcttc
 480
 cggctggccc agccagacag tttagcaag gaggaggagg tggactgttt ggtgctgcag
 540
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcagga tgagctcttt
 600
 gtgctgatcc gggatggctt cctgctccca actggcctca gtcctctggc cca
 653

<210> 5250
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 5250
 Xaa Arg Val Arg Ala Thr Gly Pro Ala Gly Ala Val Leu Ile Pro Ser
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 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg
 20 25 30
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
 35 40 45
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
 50 55 60
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
 65 70 75 80
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
 85 90 95
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
 100 105 110
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251

<211> 372

<212> DNA

<213> Homo sapiens

<400> 5251

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caccacagcg ggacggcact tcattatgac gatgtcccggt gcatcaacgg ctcgggggaa
120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaagg cctctaggct gtctgtgac aagctgtcct ctaaccatta caaataccct
300
gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgtctct cgggctcaac
360
tcgcagcctc ag
372

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<210> 5252

<211> 124

<212> PRT

<213> Homo sapiens

<400> 5252

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Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
 1              5              10              15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
 115 120

<210> 5253
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 5253
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 ccacagtgca tttccagtc agcaaatgga aatctgggga gtctatactt tgctcacaac
 120
 tcatctcaat gccatccttg tggagagcca cagtgtagtg caaggttcca tccaattcac
 180
 tgtggacaag gtcttggagc aacatcacca ggctgccaaag gctcagcaga aactacaggc
 240
 ctcaactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag
 300
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
 360
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga
 420
 ggtgaagcag cagctaacc tagaaaaaa ggactcagcc cagggcactg aggacgcacc
 480
 tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct
 540
 caagaggggc agcccccgc tagaggagat gcgagctctg cgctctgccca gggcccgag
 600
 cccgtcagag gccgccccgc gccgcccga agccaccgcg gccccctca ctctagagg
 660
 aagggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggag
 720
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtc
 780
 cagccctggg ccctgagccg ggtccccttc cgcaagcgcc caccgatccg gaggtgcgg
 840
 gcagccgtta tcccgtggt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaa
 898

<210> 5254
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 5254
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala
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 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
 35 40 45
 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255
<211> 1410
<212> DNA
<213> Homo sapiens

<400> 5255
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120
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca
180
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240
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300
catttcaagc actacgcctt ccacccccag gcaactggatc ccagattccc aagccttcac
360
ccaccagatt ctggctccta aaacaagtgc gggggccccca gtggcacagc aagtggatcc
420
tggcaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccctc
480
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag
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600
ccaagtctag atcctggcag cccagtcaca gactatccca cacacactgg tgcccagagc
660
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720
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780
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840
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960
agggacacat gaagggatgt cccaccccc aactatcag ggcctcccca ggcttccaga
1020
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaacccaag caccatga
1080
tgcaaaaaac aaaaacaaaa aaaaccacca aatccccaaa ttcattccag atctattttt
1140
ctaccagaga gaggagcaaa gtcctcctcc cctgcgcctt tacattctgc acttcatagt
1200
tggattctga gcttaggac atctggagac cccatggagg gacttgaaa ggggaactgg
1260
gatttgggga ggggctggag gacttccgca cgcttccacc tccttcgacc tccactgcgc
1320
cccacctccc tgctgtgtgt tgttatttca aaggaaaaga acaaaaggaa taaattttct
1380

aagctcttta aaaaaaaaaa aaaaaaaaaa
1410

<210> 5256

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5256

Met	Val	Glu	Gly	Val	Cys	Gly	Glu	Gly	Ser	Pro	Gly	Pro	Gly	Cys	Asn
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Leu	His	Gly	Cys	Trp	Ile	Pro	Pro	His	Pro	Thr	Ser	Ala	Trp	Pro	Pro
		20						25					30		
Pro	Pro	Ser	Pro	Val	Gly	Lys	Leu	Phe	Pro	Gly	Thr	Thr	Pro	Leu	Pro
		35				40						45			
Ala	Ser	Pro	His	Phe	Thr	Ala	Ser	Ser	Ile	Pro	Leu	Pro	Pro	Ser	Arg
	50					55					60				
Arg	Ile	Val	Pro	Arg	Ala	Val	Phe	Leu	Gln	Gly	Val	Arg	Gly	Ile	Thr
65				70					75					80	
His	Ser	Trp	Arg	Leu	Ala	Arg	Arg	Gln	Ser	Glu	Ala	Arg	Asp	Thr	
			85					90						95	

<210> 5257

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 5257

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120
tcctcctact ccgcatccgc cgagcctgcc cgggtccgcg gccttgtcta tgggcaccac
180
ggggatccag ccaaggtcgt cgaactcaag aacctggagc tagctgctgt gagaggatca
240
gatgtccgtg tgaagatgct ggcggcccct atcaatccat ctgacataaa tatgatccaa
300
ggaaactacg gactccttcc tgaactgcct gctggttgag ggaacgaagg tgttgacacg
360
gtggtagcgg tgggcagcaa tgtgaccggg ctgaagccag gagactgggt gattccagca
420
aatgctgggt tagactcagg aacctggcgg accgaggctg tgttcagcga ggaagcactg
480
atccaagtgc cgagtgcacat ccctcttcag agcgctgcca ccctgggtgt caatccctgc
540
acagcctaca ggatgttgat ggacttcgag caactgcagc caggggattc tgtcatccag
600
aatgcatcca acagcggagt ggggcaagca gtcattccaga tcgccgcagc cctgggccta
660
agaaccatca atgtgggtccg agacagacct gatattccaga agctgagtga cagactgaag
720
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780

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<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

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		20					25					30			
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
	35					40					45				
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50				55				60						
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65			70					75						80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
		85					90						95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
		100					105					110			
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
	115					120					125				
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
130					135					140					
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145			150					155						160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
		165					170						175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
	180					185						190			
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195					200				205					
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220
Lys Leu Ser Asp Arg	Leu Lys Ser Leu Gly Ala	Glu His Val Ile Thr		
225	230	235	240	
Glu Glu Glu Leu Arg	Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met			
	245	250	255	
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr				
	260	265	270	
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly				
	275	280	285	
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe				
	290	295	300	
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp				
305	310	315	320	
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu				
	325	330	335	
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu				
	340	345	350	
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser				
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Ser Lys Gln Ile Leu Thr Met				
370	375			

<210> 5259

<211> 306

<212> DNA

<213> Homo sapiens

<400> 5259

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120
actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac ttgccaagc
180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
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agtttta
306

<210> 5260

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5260

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Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Glu Lys	
20	30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro	
35	45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser	

50 55 60
 Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met
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 Thr Ser Leu

<210> 5261
 <211> 2394
 <212> DNA
 <213> Homo sapiens

<400> 5261
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 120
 atctgtttcc agggagacga gggcgccctgc ccgacccggg acttcgtggt agggagcgctt
 180
 atcctgcgct ccacggcat ggacccgagc gacatctacg cggatcatcca gatcccgggc
 240
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 300
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 360
 aagtccagct tgaagacgct cttcatcttc ttccggaacg agacgggtgga cgtggaggac
 420
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 480
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 aaggggcagc ccaagacatg ctttaaatgt ggttcccga cccacatgag cggcagctgc
 660
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 720
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 780
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 900
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 960
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 1020
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 1080
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 1200
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 1260

gtgtttgctg aattgaaaac attgttgact gtggcttcta tcagagtgtc taccttttgc
 1320
 agctcttccc ctccctcatt taatttgctg cttttaatct acgtgggtctg agaatttgctg
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 1620
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 1680
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 1920
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<210> 5262

<211> 275

<212> PRT

<213> Homo sapiens

<400> 5262

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		20					25						30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35				40					45				
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50					55					60				

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Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
70          75          80
Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu
          85          90          95
Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
          100        105        110
Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
          115        120        125
Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
          130        135        140
Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
          145        150        155        160
Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
          165        170        175
Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
          180        185        190
Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
          195        200        205
Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
          210        215        220
Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
          225        230        235        240
Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
          245        250        255
Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
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Ala Gly His
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<210> 5263
<211> 319
<212> DNA
<213> Homo sapiens

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<400> 5263
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120
gaagtagata cacattatatt tctgacaggg gggaagtatc agaagaaagc atgttggttg
180
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319

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<210> 5264
<211> 105
<212> PRT
<213> Homo sapiens

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<400> 5264

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Lys Ile Gln Ile Ser His Ser Trp Glu Glu Gly Leu Lys Leu Val Lys
      20           25           30
Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr
      35           40           45
Cys Phe Leu Leu Ile Leu Pro Pro Cys Gln Lys Ile Met Cys Ile Tyr
      50           55           60
Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val
65           70           75           80
Ile Arg Gln Leu Lys Ser Ala Leu Ser Gln Thr Leu Leu Cys His Leu
      85           90           95
Leu Ile Leu Val Leu Ile Cys Ser Arg
      100           105

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<210> 5265

<211> 3203

<212> DNA

<213> Homo sapiens

<400> 5265

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600
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660
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960

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<210> 5266

<211> 853

<212> PRT

<213> Homo sapiens

<400> 5266

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			20					25					30		
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
			35				40					45			
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
			50			55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
					70				75					80	
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
				85				90						95	
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100				105						110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
			115				120					125			
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
			130			135					140				
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
					150					155				160	
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala
			165					170						175	
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
			180					185					190		
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly

		195						200						205					
Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro				
	210					215					220								
Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro	Gly	Gly				
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				245					250					255					
Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr				
			260				265					270							
Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala	Thr	Leu				
	275					280					285								
Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Pro	Asn	Leu					
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His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val				
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Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser	Asp	Met				
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Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr				
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Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu				
	370					375				380									
Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe	Leu	Ala				
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His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu				
				405					410				415						
Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro	Gly	Pro				
			420				425					430							
Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp	Asn	Asp				
	435						440				445								
Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser	Glu	Pro				
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Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser	Pro	Gly				
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Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu	Thr	Leu				
			500				505					510							
Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly				
	515						520					525							
Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu				
	530					535				540									
Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly	Gln	Gly				
545					550					555</									

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 645 650 655
 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala
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 675 680 685
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 690 695 700
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln
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 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile
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 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr
 740 745 750
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn
 755 760 765
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu
 770 775 780
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile
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 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys
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 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val
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<210> 5267

<211> 885

<212> DNA

<213> Homo sapiens

<400> 5267

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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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		20						25						30	
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
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65				70					75					80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85						90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
		100						105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
	115						120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
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Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
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Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165						170					175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180						185					190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195						200				205				
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	
	210					215					220				
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235					240
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245						250					255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
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<210> 5269

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 5269

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<210> 5270

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5270

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          20          25          30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35          40          45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
 50          55          60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65          70          75          80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85          90          95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
          145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
          225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
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<210> 5271

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 5271

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120

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<210> 5272

<211> 385

<212> PRT

<213> Homo sapiens

<400> 5272

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Glu Cys Gly Asn Val Thr Gly Ala Ser Ser Pro Ser Arg Thr Pro Phe
35           40           45
Gln Asn Pro Ser Leu Leu Leu Val His Lys Gln Lys Leu Ala Lys Trp
50           55           60
Val Ala Ile Gln Ser Val Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile
65           70           75           80
Arg Arg Met Met Glu Val Ala Ala Ala Asp Val Lys Gln Leu Gly Gly

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Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser
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Glu Ile Pro Leu Pro Pro Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro
      115      120      125
Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala
      130      135      140
Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg
      145      150      155      160
Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val
      165      170      175
Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu
      180      185      190
Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly
      195      200      205
Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe
      210      215      220
Lys Asp Val Asp Tyr Val Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys
      225      230      235      240
Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe
      245      250      255
Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly
      260      265      270
Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser
      275      280      285
Leu Val Asp Lys Arg Gly Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala
      290      295      300
Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp
      305      310      315      320
Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu
      325      330      335
His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser
      340      345      350
Leu Ser Leu His Gly Ile Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys
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Pro
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<210> 5273

<211> 4580

<212> DNA

<213> Homo sapiens

<400> 5273

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240

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 4560
 taattacacc atttcccat
 4580

<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
1				5				10						15	
Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25						30	
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
			35				40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115				120					125				
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
	130				135					140					
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
145				150					155					160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
		165				170							175		
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180				185									

<210> 5275
 <211> 810
 <212> DNA
 <213> Homo sapiens

<400> 5275
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 120
 atgtcctgca tctaacgcgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag
 180
 tatctgctac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
 240
 aacattcgac ttccacctga agtaaatcgg atattgtata taagaaattt gccatacaaa
 300
 atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatcaga
 360
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 420
 gccaaagtat catgtgatca cctatcggga ttcaatgttt gtaacagata ccttggtggtt
 480
 ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag
 540
 ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaaata aatgttttct
 600
 acattttcat ttggactaaa tcccacgaat gacaactacc acotTTTTTT cctttttaat
 660
 taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
 720
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 780
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 810

<210> 5276
 <211> 125
 <212> PRT

<213> Homo sapiens

<400> 5276

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      20             25             30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35             40             45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50             55             60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
65             70             75             80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85             90             95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100            105            110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115            120            125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggaccg tctggcgctt cttcctgcgg gacatcacat tgaggtacaa ggagaccg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtgg ccgagggcga gggagcacca
360
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420
gcctcctcct gtgtgagtcc caccaggagc cactgcccgc gccttgccct caagggtttt
480
tgcttttctc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
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600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5278
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 20 25 30
 Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
 35 40 45
 Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
 50 55 60
 Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
 65 70 75 80
 Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
 85 90 95
 Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
 100 105 110
 Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
 115 120

<210> 5279
 <211> 1225
 <212> DNA
 <213> Homo sapiens

<400> 5279
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 120
 ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatgggtgcgc
 180
 tgccctcgaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
 240
 gggcgagtac ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
 300
 gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
 360
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 420
 gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
 480
 aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
 540
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 660
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 720
 atccagtctg aggggaaagg gtccactttt gccaaaggcta gctttgtggc ttcaggaaac
 780
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 840
 ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgctgtgaga
 900

aagcagacca aacactacaa ctcgtttgag gaagacgagc tcatggagtt ttcagagtta
960
gacagcgact cagacgaaag gcccacgaga tccaggcgcc tcaatgacaa agccaggcgc
1020
tacctccgag cggagtgcct ccgggtagag aagaacctgc tcatctttgg ctggggccgg
1080
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<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55				60					
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90						95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
	115						120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165						170					175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
			180					185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195					200					205				
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210					215				220					
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245						250					255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
			260					265					270		
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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      275      280      285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
 290      295      300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
305      310      315      320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325      330      335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340      345      350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355      360      365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370      375      380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
385      390      395      400
Lys Ser Phe Ile Trp Glu Leu Ile
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<210> 5281
 <211> 336
 <212> DNA
 <213> Homo sapiens

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<400> 5281
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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcattg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtcctcacc aaacctggag cagatcacga ttgggaaaac ctagagaaag
300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282
 <211> 91
 <212> PRT
 <213> Homo sapiens

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<400> 5282
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Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20      25      30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35      40      45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50      55      60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
65      70      75      80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283
<211> 1989
<212> DNA
<213> Homo sapiens

<400> 5283
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120
atggatggca tcattgaaca gaagagcatg ctggtgcaca gtaaaatcag tgatgctggc
180
aagaggaaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg
240
tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccggcc
300
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420
tcctgggggg acggtgtggc cgccgactgc tgcgagacca ccttcattcga ggaccggtcg
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720
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1080
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1380

4452

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 1560
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 1620
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 1860
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 1920
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 1989

<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

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		20					25						30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
		50				55				60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
		100						105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130					135				140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145					150					155				160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180					185						190	
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[illegible]

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<210> 5285
<211> 2155
<212> DNA
<213> Homo sapiens
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<400> 5285
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180 cgcaagggag ctgcggagga agagcagcag gacagcggta gtgaaccccg gggagatgag
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420 ggcattacgt atgatgacct catcaaaacc agctggactc caccctgta tgttctgagc
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1080 gagggtgaca tccgtacat cttctcttac ttcaagggcc agcgacagac cctgctcttc
1140

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 1800
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 2155

<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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1				5					10					15	
Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
		50				55				60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65					70				75				80		
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85					90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

100 105 110
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu
 115 120 125
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr
 130 135 140
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser
 145 150 155 160
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu
 165 170 175
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met
 180 185 190
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His
 195 200 205
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly
 210 215 220
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val
 225 230 235 240
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu
 245 250 255
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser
 260 265 270
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg
 275 280 285
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile
 290 295 300
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val
 305 310 315 320
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys
 325 330 335
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala
 340 345 350
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe
 355 360 365
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met
 370 375 380
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val
 385 390 395 400
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln
 405 410 415
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu
 420 425 430
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys
 435 440 445
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Lys Gly Val Glu
 450 455 460
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala
 465 470 475 480
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp
 485 490 495
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn
 500 505 510
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg
 515 520 525
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

530 535 540
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
 545 550 555 560
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
 565 570 575
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
 580 585 590
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
 595 600 605
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
 610 615 620
 Ser Met Asp Phe
 625

<210> 5287
 <211> 581
 <212> DNA
 <213> Homo sapiens

<400> 5287
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 agccccgcgc cgcactccat cccacacaggc tggggacggg ccagggtgcgg ctgtgtgggt
 120
 tcgggagcgg agttgcagaa tccaaggacc cattttgttc tttctccgca ctgctttatg
 180
 ggaggcatta tggcccccaa agacataatg acaaatactc atgctaaatc catcctcaat
 240
 tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag
 300
 aaagacttcc ctgcccacgc gattgtgctg gctgcctgta gtgattactt ctgtgccatg
 360
 ttcactagtg agctctcaga gaaggggaaa ccttatgttg acatccaagg tttgactgcc
 420
 tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
 480
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaagggtg gaaacaagcc
 540
 tgctgtgagt tcttagaaag tcagttggac ccttcacgcg t
 581

<210> 5288
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 5288
 Xaa Glu Pro Pro Glu Pro Pro Gly Leu Gly Gly Ala Ser Ala Pro Pro
 1 5 10 15
 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
 20 25 30
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
 35 40 45
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

```

      50              55              60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65              70              75              80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85              90              95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100             105             110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115             120             125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130             135             140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
145             150             155             160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165             170             175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
      180             185             190
Arg

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<210> 5289
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<400> 5289
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120
caatgaggat actgcttcag cttctgaagg ggaagtatat gatagggtcc tgaagaaact
180
tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca
240
ggatgttcag ctaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata
300
tgatgatttc atctttgttt tggatataat cagcaggttg atgcaagttg gagaagaatt
360
c
361

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<210> 5290
 <211> 95
 <212> PRT
 <213> Homo sapiens

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<400> 5290
Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn
1      5      10      15
Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
      20      25      30
Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
      35      40      45
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

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50		55		60											
Leu	Leu	Gly	Thr	Asp	Leu	Ser	Ile	Phe	Lys	Tyr	Asp	Asp	Phe	Ile	Phe
65					70					75				80	
Val	Leu	Asp	Ile	Ile	Ser	Arg	Leu	Met	Gln	Val	Gly	Glu	Glu	Phe	
			85						90					95	

<210> 5291
 <211> 767
 <212> DNA
 <213> Homo sapiens

<400> 5291
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 aagatggcca cgcagaagac tcccagcagg gcgtacatgc ccagctctag ctcaagtaca
 120
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctcctctggc ttggtctcc
 180
 tcttctctgg cctcctctctc tgcccgtca aacttgcccc tcacacctgt gttgcccccg
 240
 acaactgctg ccacctgccg ttaccacccc atgggtggctt ctgtggctgg tgggctccaa
 300
 gcagggctgg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc
 360
 ggtgccagag gccaaaggca cacggtggcg gccccggcgn gcagggctcg ggcgggtgca
 420
 gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
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 caccctgctc ctcaagtggc aggatggcac caggctctc ggctgaaacg gacagtccca
 540
 gtcaggcggt cgtagagctc agctgggcca cagtgtgatc agagaaggac agccataggg
 600
 agagggccac ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc
 660
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 720
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 767

<210> 5292
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 5292
 Gly Ala Gly Thr Ile Ser Ser Ser Ser Ser Ser Ser Leu Ala Leu
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 Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
 20 25 30
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
 35 40 45
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
 50 55 60
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90					95
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100				105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
			115			120						125		
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
			130			135					140			

<210> 5293

<211> 1428

<212> DNA

<213> Homo sapiens

<400> 5293

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 120
 gcttcactgt tgctcttggc aacatccact tccgggagcg agtgccgttt ccccgctca
 180
 ccgcgggcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc
 240
 tggcgatccg ggcaccctcg gccggcagga cccgcgggcc acgcagccgg ggcttctca
 300
 acgcctcagt acctcggcgg gaccgccatg gttctgctgc acgtgaagcg gggcgacgag
 360
 agccagttcc tgctgcaggc gcctgggagt accgagctgg aggagctcac ggtgcagggtg
 420
 gcccggttct ataattggcg gctcaagggt cagcgctctt gctcagaaat ggaagaatta
 480
 gccgaacatg gcatatttct ccctccta atgcaaggac tgaccgatga tcagattgaa
 540
 gaattgaaat tgaaggatga atggggtgaa aaatgcgtac ccagcggagg tgcagtgttt
 600
 aaaaaggatg atattggacg aaggaatggg caagctccaa atgagaagat gaagcaagt
 660
 ttaaagaaga ctatagaaga agccaaggca ataatatcta agaaacaagt ggaagccggt
 720
 gtctgtgtta ccatggagat ggtgaaagat gccttggacc agcttcgagg cgcggtgatg
 780
 attgtttacc ccatggggtt gccaccgtat gatcccatcc gcatggagtt tgaaaataag
 840
 gaagacttgt cgggaacaca ggcagggtc aacgtcatta aagaggcaga ggcgcagctg
 900
 tgggtggcag ccaaggagct gagaagaacg aagaagcttt cagactacgt ggggaagaat
 960
 gaaaaaacca aaattatcg caagattcag caaaggggac agggagctcc agcccgagag
 1020
 cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag
 1080
 gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atgggcggat
 1140

aacactgctt tgaaaagaca ttttcatgga gtgaaagaca taaagtggag accaagatga
 1200
 agttcaccag ctgatgacac ttccaaagag attagctcac ctttctccta ggcaattata
 1260
 atttaaaaaa aaaaaaaagg ccatttactg ccctctgtaa aagatgttaa cttttctagt
 1320
 tttcttttag tgtgaatttt taaaatagca gttattcaag gttttagaac ttaataaata
 1380
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 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

Met	Val	Leu	Leu	His	Val	Lys	Arg	Gly	Asp	Glu	Ser	Gln	Phe	Leu	Leu
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Gln	Ala	Pro	Gly	Ser	Thr	Glu	Leu	Glu	Glu	Leu	Thr	Val	Gln	Val	Ala
		20						25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
		35				40						45			
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
	50				55					60					
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65				70					75					80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90					95		
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115				120						125			
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
	130					135				140					
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145				150					155					160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
			180					185					190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
		195				200					205				
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
	210					215					220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225				230					235					240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245					250					255		
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn
		260						265					270		
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
		275				280							285		
Pro	Arg														

290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

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120
gacagtaacg agcagtgcgt gccgggcccc actttcagag ggggcggaag ggcatcttga
180
cacgtgtcat atggttaagag gcgcattccac tcacccaggc ctggtgcagg actctgcaag
240
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact cttggaatca
300
agcagggaaa aagtgcacaaa ttggagctgg cgggaggtgt gtgtgcctgc cccacagatg
360
gctgtggtga gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc
420
tcctgcttta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa
480
tgctggaatg aactccact ctgcccctcc ctccctcctt ccttgcctcag ggtccatgtg
540
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600
gccccacaca cccactggtg gctaccaagg cccgtcaata gatcttgtgt ccaccgagcc
660
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720
ccaagcacta caaagaggtt ttcattggcca gattcctgac ggctggcccc ttacagggca
780
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840
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960
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1020
cagatgatct tgatcttttt caatcatttc ctttgtctca gggtgaggca tcttgataaa
1080
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1140
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1260
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1320
gcttcgggaa catgtttatc aagatgcctc accctgagac aaaggaaatg attgaaaaag
1380

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 1440
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 1451

<210> 5296
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 5296
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 20 25 30
 Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln
 35 40 45
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met
 50 55 60
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp
 65 70 75 80
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys
 85 90 95
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys
 100 105 110
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys
 115 120 125
 Val Ile Leu Lys Gly
 130

<210> 5297
 <211> 5318
 <212> DNA
 <213> Homo sapiens

<400> 5297
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 agcttcccat tgctgagagc tcctgctgtt gattgtggaa aaggacacct cttctgctgg
 120
 gaggccttg gtgaagcaca tgagccttgt gactgccaaa catggaagaa ttggctgcaa
 180
 aaaataaccg aaatgaaacc agaagaactt gtgggagtta gtgaagccta cgaggatgcc
 240
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 300
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 360
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 420
 cgctatgaag tcattcaaca cgtggaggag caatccaagg aaatgactgt ggaggctgag
 480
 aaaaaacaca aacgatttca ggaacttgac agatttatgc actattatac aagatttaaa
 540

aaccatgagc atagttatca gctagaacaa cgccttctta aaacagccaa agaaaagatg
600
gagcaattga gcagagctct caaagaaact gaaggaggct gtccagatac cactttcatt
660
gaagatgcag ttcattgtgt cttaaaaact cggcgcatte tcaagtgttc ttatccatat
720
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780
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840
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960
ggtggaacat gggattggga atatttagga tttgcatcac cagaggaata tgctgaattt
1020
cagtatcgga ggaggcacag acaacgtcgt cgaggagatg ttcacagtct actcagtaat
1080
cctccagacc ctgatgagcc aagtgaagc actttagata ttccagaagg cggcagcagc
1140
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1200
tcctctgcgtg actacacccc tgccagtcgc tctgaaaacc aggactctct tcaggctctg
1260
agttccttgg atgaagacga tcccaatata cttcttgcaa tacagttatc actgcaagag
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1380
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1440
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1560
agtgatttct gtccctcatc tagtgatcct gactcagctg gccaggaccc caacatcaat
1620
gacaatcttc tcggcaacat catggcttgg tttcatgaca tgaaccctca gagtattgcc
1680
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1860
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1980
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2040
taggtggagt atgcttgata gagactttga ttcacttaat tccaactcag tgataaacca
2100
ctgacattag ggttgaatac agagaagttc cttgaatgg tagcttcatt ttttatttta
2160

accttacagg gaatttcctt tgtacttaat tgaatagctt ttcccctttt tgctgacaaa
2220
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2280
gaaaatgcag tcctctattt agcctaggct tgacaatact taaattgaac atttaaacta
2340
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2460
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2520
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Pro 145	Gly	Asn	Ile	Asn 150	Ser	Asp	Gly	Val	Val 155	Arg	His	Glu	Leu	Gln	His 160		
Pro	Ile	Ile	Ala	Arg 165	Tyr	Val	Arg	Ile	Val 170	Pro	Leu	Asp	Trp	Asn 175	Gly		
Glu	Gly	Arg	Ile 180	Gly	Leu	Arg	Ile	Glu 185	Val	Tyr	Gly	Cys	Ser 190	Tyr	Trp		
Ala	Asp	Val	Ile 195	Asn	Phe	Asp	Gly	His 200	Val	Val	Leu	Pro 205	Tyr	Arg	Phe		
Arg	Asn	Lys	Lys 210	Met	Lys 215	Thr	Leu	Lys	Asp	Val 220	Ile	Ala	Leu	Asn	Phe		
Lys 225	Thr	Ser	Glu	Ser 230	Glu	Gly	Val	Ile	Leu 235	His	Gly	Glu	Gly	Gln	Gln 240		
Gly	Asp	Tyr	Ile 245	Thr	Leu	Glu	Leu	Lys 250	Lys	Ala	Lys	Leu	Val 255	Leu	Ser		
Leu	Asn	Leu	Gly 260	Ser	Asn	Gln	Leu	Gly 265	Pro	Ile	Tyr	Gly	His 270	Thr	Ser		
Val	Met	Thr	Gly 275	Ser	Leu	Leu	Asp 280	Asp	His	His	Trp	His 285	Ser	Val	Val		
Ile	Glu	Arg	Gln 290	Gly	Arg	Ser 295	Ile	Asn	Leu	Thr	Leu	Asp 300	Arg	Ser	Met		
Gln 305	His	Phe	Arg	Thr 310	Asn	Gly	Glu	Phe	Asp 315	Tyr	Leu	Asp	Leu	Asp	Tyr 320		
Glu	Ile	Thr	Phe 325	Gly	Ile	Pro	Phe	Ser 330	Gly	Lys	Pro	Ser	Ser 335	Ser	Ser		
Ser	Arg	Lys	Asn 340	Phe	Lys	Gly	Cys	Met 345	Glu	Ser	Ile	Asn	Tyr 350	Asn	Gly		
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Val	Gly	Asn	Leu 370	Ser	Phe	Ser 375	Cys	Val	Glu	Pro	Tyr	Thr 380	Val	Pro	Val		
Phe 385	Phe	Asn	Ala	Thr 390	Ser	Tyr	Leu	Glu	Val 395	Pro	Gly	Arg	Leu	Asn	Gln 400		
Asp	Leu	Phe	Ser 405	Val	Ser	Phe	Gln	Phe 410	Arg	Thr	Trp	Asn	Pro	Asn	Gly 415		
Leu	Leu	Val	Phe 420	Ser	His	Phe	Ala	Asp 425	Asn	Leu	Gly	Asn	Val 430	Glu	Ile		
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Lys	Met	Ser	Gln 450	Ile	Asp	Ile	Ser 455	Ser	Gly	Ser	Gly	Leu	Asn	Asp	Gly 460		
Gln 465	Trp	His	Glu	Val 470	Arg	Phe	Leu	Ala	Lys	Glu	Asn	Phe	Ala	Ile	Leu 480		
Thr	Ile	Asp	Gly	Asp	Glu	Ala	Ser	Ala	Val	Arg	Thr	Asn	Ser	Pro	Leu		

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 Gln Val Lys Thr Gly Glu Lys Tyr Phe Phe Gly Gly Phe Leu Asn Gln
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 Met Asn Asn Ser Ser His Ser Val Leu Gln Pro Ser Phe Gln Gly Cys
 515 520 525
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 Ala Gln Arg Lys Pro Gly Ser Phe Ala Asn Val Ser Ile Asp Met Cys
 545 550 555 560
 Ala Ile Ile Asp Arg Cys Val Pro Asn His Cys Glu His Gly Gly Lys
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 Cys Ser Gln Thr Trp Asp Ser Phe Lys Cys Thr Cys Asp Glu Thr Gly
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 Tyr Ser Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Pro Ser Cys Glu
 595 600 605
 Ala Tyr Lys His Leu Gly Gln Thr Ser Asn Tyr Tyr Trp Ile Asp Pro
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 Asp Gly Ser Gly Pro Leu Gly Pro Leu Lys Val Tyr Cys Asn Met Thr
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 675 680 685
 Tyr Cys Glu Gln Tyr Val Ser Tyr Phe Cys Lys Met Ser Arg Leu Leu
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 Ala Cys Gly Ile Glu Arg Asn Cys Thr Asp Pro Lys Tyr Tyr Cys Asn
 740 745 750
 Cys Asp Ala Asp Tyr Lys Gln Trp Arg Lys Asp Ala Gly Phe Leu Ser
 755 760 765
 Tyr Lys Asp His Leu Pro Val Ser Gln Val Val Val Gly Asp Thr Asp
 770 775 780
 Arg Gln Gly Ser Glu Ala Lys Leu Ser Val Gly Pro Leu Arg Cys Gln
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 Tyr Leu His Phe Ser Thr Phe Gln Gly Glu Thr Ser Ala Asp Ile Ser
 820 825 830
 Phe Tyr Phe Lys Thr Leu Thr Pro Trp Gly Val Phe Leu Glu Asn Met
 835 840 845
 Gly Lys Glu Asp Phe Ile Lys Leu Glu Leu Lys Ser Ala Thr Glu Val
 850 855 860
 Ser Phe Ser Phe Asp Val Gly Asn Gly Pro Val Glu Ile Val Val Arg
 865 870 875 880
 Ser Pro Thr Pro Leu Asn Asp Asp Gln Trp His Arg Val Thr Ala Glu
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 Arg Asn Val Lys Gln Ala Ser Leu Gln Val Asp Arg Leu Pro Gln Gln
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 Ile Arg Lys Ala Pro Thr Glu Gly His Thr Arg Leu Glu Leu Tyr Ser

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Gln	Leu	Phe	Val	Gly	Gly	Ala	Gly	Gly	Gln	Gln	Gly	Phe	Leu	Gly	Cys	
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Cys	Asn	Lys	Asp	Val	Gly	Ala	Phe	Phe	Glu	Glu	Gly	Met	Trp	Leu	Arg	
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Tyr	Asn	Phe	Gln	Ala	Pro	Ala	Thr	Asn	Ala	Arg	Asp	Ser	Ser	Ser	Arg	
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Val	Asp	Asn	Ala	Pro	Asp	Gln	Gln	Asn	Ser	His	Pro	Asp	Leu	Ala	Gln	
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Glu	Glu	Ile	Arg	Phe	Ser	Phe	Ser	Thr	Thr	Lys	Ala	Pro	Cys	Ile	Leu	
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Leu	Tyr	Ile	Ser	Ser	Phe	Thr	Thr	Asp	Phe	Leu	Ala	Val	Leu	Val	Lys	
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Pro	Thr	Gly	Ser	Leu	Gln	Ile	Arg	Tyr	Asn	Leu	Gly	Gly	Thr	Arg	Glu	
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Pro	Tyr	Asn	Ile	Asp	Val	Asp	His	Arg	Asn	Met	Ala	Asn	Gly	Gln	Pro	
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His	Ser	Val	Asn	Ile	Thr	Arg	His	Glu	Lys	Thr	Ile	Phe	Leu	Lys	Leu	
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Gly	Lys	Ile	Asp	Gln	Glu	Ile	His	Lys	Tyr	Asn	Thr	Pro	Gly	Phe	Thr	
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Leu	Val	Glu	Ser	Asn	Cys	Gly	Ala	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Met	
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Ser	Ser	Ala	Thr	Asp	Pro	Trp	His	Leu	Asp	His	Leu	Asp	Ser	Ala	Ser	
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Val	Asn	Arg	Asn	Ser	Ala	Ile	Ile	Gly	Gly	Val	Ile	Ala	Val	Val	Ile	
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Phe	Thr	Ile	Leu	Cys	Thr	Leu	Val	Phe	Leu	Ile	Arg	Tyr	Met	Phe	Arg	
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His	Lys	Gly	Thr	Tyr	His	Thr	Asn	Glu	Ala	Lys	Gly	Ala	Glu	Ser	Ala	
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Glu	Ser	Ala	Asp	Ala	Ala	Ile	Met	Asn	Asn	Asp	Pro	Asn	Phe	Thr	Glu	
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<210> 5303
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 5303
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 240
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<210> 5304
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 5304
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 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met
 35 40 45
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala
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 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr
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 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu
 85 90 95

<210> 5305
 <211> 582
 <212> DNA
 <213> Homo sapiens

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 ctgtttagg cactggctag ggaggggcag gcctccttcc tgcccctcga gacactcttg
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 240
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 420
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<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

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Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
			20				25						30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35				40					45				
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
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<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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 240
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 ttaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagtt
 360
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 420
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 720
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 780
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 960
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 1080
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 1320
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 1440
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<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
		20						25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
		35				40					45				
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
	50					55					60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70					75					80	
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85					90						95	
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
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<210> 5309

<211> 2078

<212> DNA

<213> Homo sapiens

<400> 5309

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120
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180
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240
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360
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600
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660
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960
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1020
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1080
agtcataggg gagaaggaga agaagatcat gaatcaccat cttcaggcag ggtaccagca
1140
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1380
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gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaaatgt
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<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
			50			55					60				
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65					70					75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
			115				120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
			130			135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145					150					155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180				185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
			195			200					205				
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
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Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
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Gln Cys Thr Val Thr Glu Val
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<210> 5311
 <211> 572
 <212> DNA
 <213> Homo sapiens

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<210> 5312
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 5312
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      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
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Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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<210> 5313

<211> 322

<212> DNA

<213> Homo sapiens

<400> 5313

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<210> 5314

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5314

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Arg Gly Arg Arg Glu Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
      20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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35					40					45					
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
50					55					60					
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met
65					70					75					
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
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<211> 2298
<212> DNA
<213> Homo sapiens
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1140

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<211> 544

<212> PRT

<213> Homo sapiens

<400> 5316

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			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
		35					40					45			
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

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Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu
65      70      75      80
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala
      85      90      95
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp
      100      105      110
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu
      115      120      125
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala
      130      135      140
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn
      145      150      155      160
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys
      165      170      175
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn
      180      185      190
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys
      195      200      205
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly
      210      215      220
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val
      225      230      235      240
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe
      245      250      255
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu
      260      265      270
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly
      275      280      285
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys
      290      295      300
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser
      305      310      315      320
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly
      325      330      335
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu
      340      345      350
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe
      355      360      365
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys
      370      375      380
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro
      385      390      395      400
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro
      405      410      415
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala
      420      425      430
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu
      435      440      445
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp
      450      455      460
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Glu Pro Pro
      465      470      475      480
Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu

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				485					490					495					
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser				
			500					505						510					
Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu				
		515					520					525							
Glu	Glu	Leu	Leu	Leu	Glu	Ala	Ser	Gln	Glu	Ser	Gly	Gln	Glu	Thr	Leu				
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<211> 889
<212> DNA
<213> Homo sapiens
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<400> 5317

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420					
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<210> 5318
<211> 132
<212> PRT
<213> Homo sapiens
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<400> 5318
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<210> 5319
<211> 4231
<212> DNA
<213> Homo sapiens
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<211> 96
<212> PRT
<213> Homo sapiens

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35 40 45
Gly Ser Leu Gln Pro Pro Pro Arg Phe Lys Gln Phe Ser Cys Pro
50 55 60
Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Met Pro Pro Trp Leu Ala
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Asn Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Tyr Trp Ser Gly
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<210> 5321
<211> 6324
<212> DNA
<213> Homo sapiens

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<211> 209

<212> PRT

<213> Homo sapiens

<400> 5322

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Phe	Ser	Asp	Ser	Val	Lys	Ser	Thr	Phe	Arg	His	Phe	Lys	Asp	Thr
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Glu	Ala	Ala	Glu	Lys	Pro	Arg	Thr	Val	Phe	Ser	Asp	Tyr	Leu	His
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<212> DNA
<213> Homo sapiens

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Val Ser Cys Leu Pro Asp Pro Gly Arg
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<211> 938
<212> DNA
<213> Homo sapiens

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 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala
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 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly
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 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

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Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly
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Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln
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<211> 2084

<212> DNA

<213> Homo sapiens

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<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
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Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe		335
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Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		380
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Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
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Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu		415
	420	425
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn		430
	435	440
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
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Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser		460
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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5332

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Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
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<213> Homo sapiens

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 65 70 75 80
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val
 85 90 95
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg
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 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln
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<210> 5335

<211> 4282

<212> DNA

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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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<211> 2742

<212> DNA

<213> Homo sapiens

<400> 5337

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<213> Homo sapiens

<400> 5338

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			20					25					30		
Asn	Ser	Gln	Met	Lys	Ile	Val	His	Lys	Lys	Lys	Glu	Arg	Gly	His	Gly
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Tyr	Asn	Ser	Ser	Ala	Ala	Ala	Trp	Gln	Ala	Met	Gln	Asn	Gly	Gly	Lys
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Pro	Arg	Leu	Leu	Phe	Lys	Ser	Gln	Ala	Asn	Gln	Asn	Tyr	Ala	Gly	Ala
				85					90					95	
Lys	Phe	Ser	Glu	Pro	Pro	Ser	Pro	Ser	Val	Leu	Pro	Lys	Pro	Pro	Ser
			100					105					110		
His	Trp	Val	Pro	Val	Ser	Phe	Asn	Pro	Ser	Asp	Lys	Glu	Ile	Met	Thr
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Glu	Glu	Ser	Gln	Asp	Glu	Asp	Asp	Ala	Leu	Asn	Glu	Ile	Val	Arg	Cys
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Cys	Leu	Cys	Trp	Gln	His	Ser	Val	Cys	Met	Gly	Leu	Leu	Glu	Glu	Ser
			85					90						95	
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<213> Homo sapiens

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 Ile Leu His Leu Gly Leu Lys Ile Arg Gly Cys Leu Ser Arg Gln Pro

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<212> DNA

<213> Homo sapiens

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 50 55 60
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 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile
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 <213> Homo sapiens

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<210> 5346

<211> 534

<212> PRT

<213> Homo sapiens

<400> 5346

Met	Pro	Val	Ala	Gly	Gly	Lys	Ala	Asn	Lys	Asp	Arg	Thr	Glu	Asp	Lys
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		20						25					30		
Ser	Val	Lys	Ala	Leu	Leu	Leu	Lys	Gly	Lys	Ala	Pro	Val	Asp	Pro	Glu
		35					40					45			
Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

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Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
65	70	75
Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
145	150	155
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		160
	165	170
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		175
	180	185
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		190
	195	200
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		205
	210	215
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		220
225	230	235
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		240
	245	250
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		255
	260	265
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		270
	275	280
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		285
	290	295
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		300
305	310	315
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		320
	325	330
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		335
	340	345
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg		350
	355	360
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser		365
	370	375
Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu		380
385	390	395
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		400
	405	410
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		415
	420	425
Thr Gly Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		430
	435	440
Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		445
	450	455
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val		460
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[illegible]

<210> 5347<211> 2893

<212> DNA

<213> Homo sapiens

<400> 5347

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1140					
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<210> 5348

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5348

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		20					25						30		
Tyr	Leu	Leu	Leu	Pro	Pro	Pro	Thr	Leu	Leu	Gln	Asp	Glu	Leu	Leu	Phe
	35					40					45				
Leu	Gly	Gly	Pro	Ala	Ser	Ser	Ala	Tyr	Ala	Leu	Ser	Pro	Phe	Ser	Ala
	50				55					60					
Ser	Gly	Gly	Trp	Gly	Arg	Ala	Gly	His	Leu	His	Pro	Lys	Gly	Arg	Glu
65				70					75					80	
Leu	Asp	Pro	Ala	Ala	Pro	Pro	Glu	Gly	Gln	Leu	Leu	Arg	Glu	Val	Arg
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Ala	Leu	Gly	Val	Pro	Phe	Val	Pro	Arg	Thr	Ser	Val	Asp	Ala	Trp	Leu
	100						105						110		
Val	His	Ser	Val	Ala	Ala	Gly	Ser	Ala	Asp	Glu	Ala	His	Gly	Leu	Leu
	115					120						125			
Gly	Ala	Ala	Ala	Ala	Ser	Ser	Thr	Gly	Gly	Ala	Gly	Ala	Ser	Val	Asp
	130				135					140					
Gly	Gly	Ser	Gln	Ala	Val	Gln	Gly	Gly	Cys	Gly	Asp	Ser	Arg	Ala	Ala
145			150						155					160	
Arg	Ser	Gly	Pro	Leu	Asp	Ala	Gly	Glu	Glu	Glu	Lys	Ala	Pro	Ala	Glu
	165						170						175		
Pro	Thr	Ala	Gln	Val	Pro	Asp	Ala	Gly	Gly	Cys	Ala	Ser	Glu	Glu	Asn
	180					185						190			
Gly	Val	Leu	Arg	Glu	Lys	His	Glu	Ala	Val	Asp	His	Ser	Ser	Gln	His
	195				200					205					
Glu	Glu	Asn	Glu	Glu	Arg	Val	Ser	Ala	Gln	Lys	Glu	Asn	Ser	Leu	Gln
	210				215					220					
Gln	Asn	Asp	Asp	Asp	Glu	Asn	Lys	Ile	Ala	Glu	Lys	Pro	Asp	Trp	Glu
225			230						235					240	
Ala	Glu	Lys	Thr	Thr	Glu	Ser	Arg	Asn	Glu	Arg	His	Leu	Asn	Gly	Thr
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Asp	Thr	Ser	Phe	Ser	Leu	Glu	Asp	Leu	Phe	Gln	Leu	Leu	Ser	Ser	Gln
	260						265					270			
Pro	Glu	Asn	Ser	Leu	Glu	Gly	Ile	Ser	Leu	Gly	Asp	Ile	Pro	Leu	Pro
	275					280					285				
Gly	Ser	Ile	Ser	Asp	Gly	Met	Asn	Ser	Ser	Ala	His	Tyr	His	Val	Asn
	290				295					300					
Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val	Asn	Leu	His	Glu	Ala	Ile	Leu
305			310						315					320	
Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg	Asp	Pro	Thr	Ala	Arg	Thr	Ser
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Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu	Asn	Ser	His	Thr	Thr	Asn	Pro

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      370      375      380
Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu
      385      390      395      400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
      405      410      415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
      420      425      430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
      435      440      445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
      450      455      460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
      465      470      475      480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
      485      490      495
Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
      500      505      510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
      515      520      525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
      530      535      540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
      545      550      555      560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
      565      570      575Leu Ile Arg
Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala
      580      585      590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
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Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
      610      615      620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
      625      630      635      640
Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro
      645      650      655
Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
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<210> 5349

<211> 425

<212> DNA

<213> Homo sapiens

<400> 5349

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<210> 5350
 <211> 134
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Lys Val Ser Ser Gln Glu Gly Glu Gly Arg Ile Pro Leu Pro Gly
 50 55 60
 Lys Ala Glu Val Arg Glu Ala Gly Gln Pro Ile Pro Val Ser Leu Leu
 65 70 75 80
 Leu Leu Ser Pro Lys Lys Ala Leu Thr Leu Leu Ala Thr Ala Gln Gly
 85 90 95
 Gly His Glu Gly Leu Gly Arg Leu Leu Trp Gln Ser Gly Pro Leu Gln
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 Pro Arg Pro Glu Lys Lys Arg Thr Pro Lys Ser Phe Trp Leu Pro Val
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 <213> Homo sapiens

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 240

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<210> 5352
 <211> 112
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Asp Ala Leu Ser Lys Ser Leu Gln Gln Asn Leu Pro Ser Arg Ser
 50 55 60
 Val Ser Lys Pro Ser Leu Phe Ser Ser Val Gln Leu Tyr Arg Gln Ser
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<210> 5353
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 <213> Homo sapiens

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<213> Homo sapiens

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 <213> Homo sapiens

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 Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
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 Leu Glu Gln Gln Leu Pro Val Leu Leu Gln Thr Leu Leu Gly Asn Asp
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 His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala
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 Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
 100 105 110
 Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
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 Gly Ser Lys Trp Tyr Gly Arg Ser Arg Pro Glu Leu Cys Asp Ala
 130 135 140
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 Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro
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 Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly
 195 200 205
 Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln
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 Ile Arg Gly Val Trp Glu Leu Gly Val Gly Ser Ser Gly His Leu
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Gln Gly Tyr Arg Glu Arg Leu Ser Leu Leu Arg Ser Glu Val Glu Ala
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Glu Trp Asp Val Gly Arg Leu Gln Ala Glu Glu Ala Gly Leu Arg Glu
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His Leu Gln Gln Ile Arg Arg Glu Ala Glu Ala Glu Leu Ser Gly Glu
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Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn		1310
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Glu Lys Asn Thr Lys Ser Asp Leu Leu Leu Lys Glu Leu Tyr Val Glu		1340
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 <212> DNA
 <213> Homo sapiens

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 Asn Ser Leu Gln Pro Pro Pro Pro Gly Phe Lys Gly Phe Ser Cys Leu
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<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

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<211> 1824

<212> DNA

<213> Homo sapiens

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<211> 477

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<213> Homo sapiens

<400> 5366

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His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
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Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
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Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
				85					90					95	
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
			100					105					110		
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Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
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Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
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Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
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225				230						235				240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
				245					250					255	
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
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Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

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  305      310      315      320
Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala
      325      330      335
Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr
      340      345      350
Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly
      355      360      365
Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro
      370      375      380
Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu
  385      390      395      400
Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser
      405      410      415
His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr
      420      425      430
Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe
      435      440      445
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<210> 5367

<211> 549

<212> DNA

<213> Homo sapiens

<400> 5367

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<210> 5368

<211> 137
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr
 50 55 60
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile
 65 70 75 80
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu
 85 90 95
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu
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 His Gln Ala Pro Glu Ala Ala Pro Thr
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<210> 5369
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 <212> DNA
 <213> Homo sapiens

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<210> 5370

<211> 148
 <212> PRT
 <213> Homo sapiens

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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
 35 40 45
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
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 Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala
 65 70 75 80
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
 85 90 95
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
 100 105 110
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 <211> 1177
 <212> DNA
 <213> Homo sapiens

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<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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		20						25				30			
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35					40				45				
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
	50					55				60					
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65					70				75					80	
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
		85						90					95		
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
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Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115					120					125			
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
		130				135					140				
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				165				170						175	
Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
		180						185					190		
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
		195					200					205			
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Gln	Trp	Ser	Ser	Val	Cys	Pro	Leu	Pro	Ala	Gly	His	Gly	Glu	Pro	Gly
				260					265					270	
Ile	Ala	Val	Leu	Asp	Asn	Arg	Ile	Tyr	Val	Leu	Gly	Gly	Arg	Ser	His
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Asp	Cys	Trp	Glu	Glu	Gly	Pro	Gln	Leu	Asp	Asn	Ser	Ile	Ser	Gly	Leu
305					310					315				320	
Ala	Ala	Cys	Val	Leu	Thr	Leu	Pro	Arg	Ser	Leu	Leu	Leu	Glu	Pro	Pro
					325				330					335	
Arg	Gly	Thr	Pro	Asp	Arg	Ser	Gln	Ala	Asp	Pro	Asp	Phe	Ala	Ser	Glu
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<210> 5373

<211> 4221

<212> DNA

<213> Homo sapiens

<400> 5373

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<210> 5374

<211> 886

<212> PRT

<213> Homo sapiens

<400> 5374

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			20					25					30		
Lys	Lys	Ser	Leu	Gln	Glu	Lys	Gly	Lys	Leu	Ser	Ala	Glu	Glu	Asn	Pro
			35				40					45			
Asp	Asp	Ser	Glu	Val	Pro	Ser	Ser	Ser	Gly	Ile	Asn	Ser	Thr	Lys	Ser
	50					55					60				
Gln	Asp	Lys	Asp	Val	Asn	Glu	Gly	Glu	Thr	Ser	Asp	Gly	Val	Arg	Lys
65					70					75				80	
Ser	Val	His	Lys	Val	Phe	Ala	Ser	Met	Leu	Gly	Glu	Asn	Glu	Asp	Asp
				85					90					95	
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			100					105					110		
Pro	Glu	Gln	Pro	Thr	Ala	Gly	Asp	Val	Phe	Val	Leu	Glu	Met	Val	Leu
			115					120					125		
Asn	Arg	Glu	Thr	Lys	Lys	Met	Met	Lys	Glu	Lys	Arg	Pro	Arg	Ser	Lys
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				165					170					175	
Arg	Gln	Ala	Pro	Leu	Ala	Tyr	Glu	Pro	Phe	Ser	Thr	Leu	Ala	Met	Ile
			180					185					190		
Tyr	Glu	Asp	Gln	Gly	Asp	Met	Glu	Lys	Ser	Leu	Gln	Phe	Glu	Leu	Ile
			195				200					205			
Ala	Ala	His	Leu	Asn	Pro	Ser	Asp	Thr	Glu	Glu	Trp	Val	Arg	Leu	Ala
	210				215						220				
Glu	Met	Ser	Leu	Glu	Gln	Asp	Asn	Ile	Lys	Gln	Ala	Ile	Phe	Cys	Tyr
225					230					235				240	
Thr	Lys	Ala	Leu	Lys	Tyr	Glu	Pro	Thr	Asn	Val	Arg	Tyr	Leu	Trp	Glu
				245					250					255	
Arg	Ser	Ser	Leu	Tyr	Glu	Gln	Met	Gly	Asp	His	Lys	Met	Ala	Met	Asp
			260					265					270		
Gly	Tyr	Arg	Arg	Ile	Leu	Asn	Leu	Leu	Ser	Pro	Ser	Asp	Gly	Glu	Arg
			275				280					285			
Phe	Met	Gln	Leu	Ala	Arg	Asp	Met	Ala	Lys	Ser	Tyr	Tyr	Glu	Ala	Asn
	290					295						300			
Asp	Val	Thr	Ser	Ala	Ile	Asn	Ile	Ile	Asp	Glu	Ala	Phe	Ser	Lys	His
305					310					315				320	
Gln	Gly	Leu	Val	Ser	Met	Glu	Asp	Val	Asn	Ile	Ala	Ala	Glu	Leu	Tyr
				325					330					335	
Ile	Ser	Asn	Lys	Gln	Tyr	Asp	Lys	Ala	Leu	Glu	Ile	Ile	Thr	Asp	Phe

				340						345					350			
Ser	Gly	Ile	Val	Leu	Glu	Lys	Lys	Thr	Ser	Glu	Glu	Gly	Thr	Ser	Glu			
		355					360					365						
Glu	Asn	Lys	Ala	Pro	Glu	Asn	Val	Thr	Cys	Thr	Ile	Pro	Asp	Gly	Val			
	370					375					380							
Pro	Ile	Asp	Ile	Thr	Val	Lys	Leu	Met	Val	Cys	Leu	Val	His	Leu	Asn			
385					390					395					400			
Ile	Leu	Glu	Pro	Leu	Asn	Pro	Leu	Leu	Thr	Thr	Leu	Val	Glu	Gln	Asn			
				405					410						415			
Pro	Glu	Asp	Met	Gly	Asp	Leu	Tyr	Leu	Asp	Val	Ala	Glu	Ala	Phe	Leu			
			420					425					430					
Asp	Val	Gly	Glu	Tyr	Asn	Ser	Ala	Leu	Pro	Leu	Leu	Ser	Ala	Leu	Val			
		435					440					445						
Cys	Ser	Glu	Arg	Tyr	Asn	Leu	Ala	Val	Val	Trp	Leu	Arg	His	Ala	Glu			
	450					455					460							
Cys	Leu	Lys	Ala	Leu	Gly	Tyr	Met	Glu	Arg	Ala	Ala	Glu	Ser	Tyr	Gly			
465					470					475					480			
Lys	Val	Val	Asp	Leu	Ala	Pro	Leu	His	Leu	Asp	Ala	Arg	Ile	Ser	Leu			
				485					490						495			
Ser	Thr	Leu	Gln	Gln	Gln	Leu	Gly	Gln	Pro	Glu	Lys	Ala	Leu	Glu	Ala			
			500					505					510					
Leu	Glu	Pro	Met	Tyr	Asp	Pro	Asp	Thr	Leu	Ala	Gln	Asp	Ala	Asn	Ala			
		515					520					525						
Ala	Gln	Gln	Glu	Leu	Lys	Leu	Leu	Leu	His	Arg	Ser	Thr	Leu	Leu	Phe			
		530					535				540							
Ser	Gln	Gly	Lys	Met	Tyr	Gly	Tyr	Val	Asp	Thr	Leu	Leu	Thr	Met	Leu			
545					550					555					560			
Ala	Met	Leu	Leu	Lys	Val	Ala	Met	Asn	Arg	Ala	Gln	Val	Cys	Leu	Ile			
				565					570					575				
Ser	Ser	Ser	Lys	Ser	Gly	Glu	Arg	His	Leu	Tyr	Leu	Ile	Lys	Val	Ser			
			580					585					590					
Arg	Asp	Lys	Ile	Ser	Asp	Ser	Asn	Asp	Gln	Glu	Ser	Ala	Asn	Cys	Asp			
		595					600					605						
Ala	Lys	Ala	Ile	Phe	Ala	Val	Leu	Thr	Ser	Val	Leu	Thr	Lys	Asp	Asp			
		610				615					620							
Trp	Trp	Asn	Leu	Leu	Leu	Lys	Ala	Ile	Tyr	Ser	Leu	Cys	Asp	Leu	Ser			
625					630					635					640			
Arg	Phe	Gln	Glu	Ala	Glu	Leu	Leu	Val	Asp	Ser	Ser	Leu	Glu	Tyr	Tyr			
				645					650					655				


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      770              775              780
Tyr Val Leu Arg Arg His Ala Leu Ile Val Gln Gly Phe Ser Phe Leu
785              790              795              800
Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
      850              855              860
Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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Tyr Thr Tyr Cys Ser Ile
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<210> 5375

<211> 526

<212> DNA

<213> Homo sapiens

<400> 5375

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120
tggtaacgat ctgtcttctg caaatggggtt acagcgtgct gctgccagtt ctgaatcccc
180
agtagcccg agttgggtgc agttgaaatc catttccctt tttgccttta gtgaggcatc
240
ccctcctcc ttattaaaga agaatacatg tcgctgccat ttgccacgta tttgccatag
300
accaggact attagcatct ttaaccacag taaccacact ggggatggct ggggaatgtt
360
catgtcccca ttttacagga gtggtgatta aggctcaaag gatggagggtg atggatcaaa
420
gtcgtctgcc aagtgggtggc agcattgggt ctcagaccga ggcccgtcta cacagtgtgtg
480
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<210> 5376

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5376

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Arg Ala Ser Arg Val Leu Ser Gly Asn Asp Leu Ser Ser Ala Asn Gly
20     25     30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
35     40     45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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50		55		60
Ser Ser Leu Leu Lys Lys Asn Thr Cys Arg Cys His Leu Pro Arg Ile				
65		70		75
Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr				80
	85		90	95
Gly Asp Gly Trp Gly Met Phe Met Ser Pro Phe Tyr Arg Ser Gly Asp				
	100		105	110

<210> 5377

<211> 1452

<212> DNA

<213> Homo sapiens

<400> 5377

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120
cggggactgt gcacgaggtt ggcgacgccg ccccgccggg ccccgatca ggccgcagag
180
atcgggagcc gcgggagcac taaggcgcaa gggccacagc agcagccggg ctcagagggt
240
cccagctatg ccaaaaaagt tgcgctctgg cttgctgggc tgcctggagc tgggtgggact
300
gtgagcgtcg tctatatctt tggaacaac ccggtggacg aaaatggtgc caagattcct
360
gatgagttcg acaatgatcc aattctggta cagcagttgc gccggacata caaatatttc
420
aaagattata gacagatgat catcgagccc accagccctt gccttctccc agaccctctg
480
caggaaccgt actaccagcc accctacacg ctctgttttg agctcaccgg cgtcctcttg
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1140
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1200

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 1320
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<210> 5378

<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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Pro	Ser	Met	Tyr	Leu	Val	Ala	Ala	Ser	Ala	Ala	Val	Phe	Ser	Arg	Leu
		20						25					30		
Arg	Ser	Gly	Leu	Arg	Leu	Gly	Ser	Arg	Gly	Leu	Cys	Thr	Arg	Leu	Ala
		35				40						45			
Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
	50				55						60				
Gly	Ser	Thr	Lys	Ala	Gln	Gly	Pro	Gln	Gln	Gln	Pro	Gly	Ser	Glu	Gly
65				70					75					80	
Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
			85					90						95	
Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
			100					105					110		
Asp	Glu	Asn	Gly	Ala	Lys	Ile	Pro	Asp	Glu	Phe	Asp	Asn	Asp	Pro	Ile
		115					120					125			
Leu	Val	Gln	Gln	Leu	Arg	Arg	Thr	Tyr	Lys	Tyr	Phe	Lys	Asp	Tyr	Arg
130						135					140				
Gln	Met	Ile	Ile	Glu	Pro	Thr	Ser	Pro	Cys	Leu	Leu	Pro	Asp	Pro	Leu
145					150					155					160
Gln	Glu	Pro	Tyr	Tyr	Gln	Pro	Pro	Tyr	Thr	Leu	Val	Leu	Glu	Leu	Thr
			165					170						175	
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		180					185						190		
Lys	Lys	Arg	Pro	Gly	Ile	Glu	Thr	Leu	Phe	Gln	Gln	Leu	Ala	Pro	Leu
		195					200					205			
Tyr	Glu	Ile	Val	Ile	Phe	Thr	Ser	Glu	Thr	Gly	Met	Thr	Ala	Phe	Pro
210					215						220				
Leu	Ile	Asp	Ser	Val	Asp	Pro	His	Gly	Phe	Ile	Ser	Tyr	Arg	Leu	Phe
225				230					235					240	
Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
			245					250						255	
Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
		260					265						270		
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
		275				280						285			
Asp	Gly	Asn	Ser	Asp	Asp	Arg	Val	Leu	Leu	Asp	Leu	Ser	Ala	Phe	Leu

290 295 300
 Lys Thr Ile Ala Leu Asn Gly Val Glu Asp Val Arg Thr Val Leu Glu
 305 310 315 320
 His Tyr Ala Leu Glu Asp Asp Pro Leu Ala Ala Phe Lys Gln Arg Gln
 325 330 335
 Ser Arg Leu Glu Gln Glu Gln Arg Leu Ala Glu Leu Ser Lys
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<210> 5379

<211> 3213

<212> DNA

<213> Homo sapiens

<400> 5379

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<210> 5380

<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Gln	Leu	Cys	His	Gly	Leu	Val	Gly	Ser	Trp	Pro	Ala	Cys	Ser	Ala	Pro
		20					25					30			
Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
		35				40						45			
Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
	50				55						60				
Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
65				70					75					80	
Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85					90						95	
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
		100					105					110			
Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
		115				120						125			
Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
	130					135					140				
Gly	Lys	Phe	Ser	Glu	Ala	Met	Ser	Val	Pro	Gly	Glu	Glu	Glu	Arg	Leu
145				150					155					160	
Val	Arg	Val	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg
			165					170					175		
Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
		180					185					190			
Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
		195				200					205				
Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
	210				215						220				
Ala	Ala	Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu

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          260          265          270
Gly Ser Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala
          275          280          285
Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys
          290          295          300
Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys
305          310          315          320
Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly
          325          330          335
Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly
          340          345          350
Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu
          355          360          365
Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp
370          375          380
Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro
385          390          395          400
Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro
          405          410          415
Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro
          420          425          430
Ala Ser Pro Ala Ala Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val
          435          440          445
Pro Pro Ala Val Leu Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser
          450          455          460
Ala Thr Pro Thr Pro Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His
465          470          475          480
Leu Ile Pro Leu Leu Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala
          485          490          495
Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu
          500          505          510
Ala Arg Leu Met Ala Leu Ala Leu Ala Glu Arg Ala Gln Gln Val Ala
          515          520          525
Glu Gln Gln Ser Gln Gln Glu Cys Gly Gly Thr Pro Pro Ala Ser Gln
          530          535          540
Ser Pro Phe His Arg Ser Leu Ser Leu Glu Val Gly Gly Glu Pro Leu
545          550          555          560
Gly Thr Ser Gly Ser Gly Pro Pro Pro Asn Ser Leu Ala His Pro Gly
          565          570          575
Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp
          580          585          590
Gly Ser Leu Leu Arg Ser Gln Arg Pro Met Gly Thr Ser Arg Arg Gly
          595          600          605
Leu Arg Gly Pro Ala Gln Val Ser Ala Gln Leu Arg Ala Gly Gly Gly
          610          615          620
Gly Arg Asp Ala Pro Glu Ala Ala Ala Gln Ser Pro Cys Ser Val Pro
625          630          635          640
Ser Gln Val Pro Thr Pro Gly Phe Phe Ser Pro Ala Pro Arg Glu Cys
          645          650          655
Leu Pro Pro Phe Leu Gly Val Pro Lys Pro Gly Leu Tyr Pro Leu Gly

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        675          680          685
Leu Gly Pro Pro Ala Pro Leu Asp Arg Gly Glu Asn Leu Tyr Tyr Glu
        690          695          700
Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp
        705          710          715          720
Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly
        725          730          735
Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu
        740          745          750
Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr
        755          760          765
Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu
        770          775          780
Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser
        785          790          795          800
Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly
        805          810          815
Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro
        820          825          830
Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu
        835          840          845
Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu
        850          855          860
His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala
        865          870          875          880
Gly Pro Pro Pro Pro Tyr Pro Thr Pro Ser Trp Ser Leu His Ser Glu
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<210> 5381
 <211> 1576
 <212> DNA
 <213> Homo sapiens

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<400> 5381
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180
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240
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300
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360
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420
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480

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720
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<210> 5382

<211> 223

<212> PRT

<213> Homo sapiens

<400> 5382

Xaa Met Ala Met Arg Pro Phe Phe Gly Ile Val Pro Val Leu Met Asp
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20 25 30
Ile Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His
35 40 45
Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe
50 55 60
Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

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65          70          75          80
Gly Arg Met Asp Asp Val Ile Asn Ile Ser Gly His Arg Leu Gly Thr
      85          90          95
Ala Glu Ile Glu Asp Ala Ile Ala Asp His Pro Ala Val Pro Glu Ser
      100         105         110
Ala Val Ile Gly Tyr Pro His Asp Ile Lys Gly Glu Ala Ala Phe Ala
      115         120         125
Phe Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Val Gln
      130         135         140
Glu Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro
145         150         155         160
Asp Glu Ile Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys
      165         170         175
Val Met Arg Arg Leu Leu Arg Lys Ile Ile Thr Ser Glu Ala Gln Glu
      180         185         190
Leu Gly Asp Thr Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile
      195         200         205
Leu Ser Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys
      210         215         220

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<210> 5383

<211> 2027

<212> DNA

<213> Homo sapiens

<400> 5383

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720
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780
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840

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 1680
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<210> 5384

<211> 508

<212> PRT

<213> Homo sapiens

<400> 5384

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Phe	Pro	Lys	Val	Glu	Tyr	Ile	Ala	Arg	Ala	Gly	Ala	Trp	Ala	Met	Phe
			20					25					30		
Leu	Asp	Arg	Pro	Gln	Gln	Trp	Leu	Gln	Leu	Val	Leu	Leu	Pro	Pro	Ala
			35				40					45			
Leu	Phe	Ile	Pro	Ser	Thr	Glu	Asn	Glu	Glu	Gln	Arg	Leu	Ala	Ser	Ala

50	55	60
Arg Ala Val Pro Arg Asn Val Gln Pro Tyr Val Val Tyr Glu Glu Val		
65	70	75
Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln		80
	85	90
Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys		95
	100	105
Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln		110
	115	120
Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser		125
	130	135
Leu Thr Asn Ala Ile Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe		140
	145	150
Gln Gly Thr Lys Asp Thr Pro Leu Glu His His Leu Tyr Val Val Ser		155
	165	170
Tyr Glu Ala Ala Gly Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser		175
	180	185
His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr		190
	195	200
Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly		205
	210	215
Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met		220
	225	230
Met Glu Ala Ala Lys Ile Phe His Phe His Thr Arg Ser Asp Val Arg		235
	245	250
Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys		255
	260	265
His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val		270
	275	280
Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala		285
	290	295
Ser Leu Gly Tyr Ala Val Val Ile Asp Gly Arg Gly Ser Cys Gln		300
	305	310
Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val		315
	325	330
Glu Ile Glu Asp Gln Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr		335
	340	345
Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly		350
	355	360
Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys		365
	370	375
Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr		380
	385	390
Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly		395
	405	410
Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu		415
	420	425
Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His		430
	435	440
Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys		445
	450	455
Pro Tyr Gln Leu Gln Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr		460
	465	470
Pro Asn Glu Arg His Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr		475
		480

485 490 495
 Glu Val Thr Leu Leu His Phe Leu Gln Glu Tyr Leu
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<210> 5385
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 5385
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 120
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 180
 cagcctggcc tcctcgcccc ctacgctgca cccaccttcc acttcctgga gatgcacca
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<210> 5386
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5386
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 Thr Trp Ser Ile Cys Cys Ser Trp Asn Arg Lys Glu Arg Ser Lys Lys
 20 25 30
 Ser Val Pro Ser Pro Pro Arg Ala Gln Pro Leu Gly Arg Gly Leu His
 35 40 45
 Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr
 50 55 60
 Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu
 65 70 75 80
 Asn Cys Phe Arg Lys Cys Leu Gln His Ser Arg Glu Trp Asn Lys Gln
 85 90 95
 Gly Pro Asn Ala
 100

<210> 5387
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 5387
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 120

atgaccctga tcattctcat cgtggagctg tgcgggctcc aggcccgctt cccctgtct
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 240
 atcatctacc ccaccaccta tgtccagttc ctgtcccaag gccgttcgcy ggaccacgcy
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<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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Gln	Met	Ala	Tyr	Thr	Ala	Thr	His	Gln	Ser	Met	Gly	Asn	Trp	Ser	Met
		20					25					30			
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40				45				
Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu	Ser	Trp	Arg	Asn	Phe
	50				55					60					
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
65				70					75					80	
Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
		85						90					95		
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
		100					105						110		
Ala	Tyr	Ala	Thr	Glu	Met	Ala	Trp	Thr	Arg	Ala	Arg	Ala			
	115						120					125			

<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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 420

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 960
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 1020
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 1080
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 1620
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 1680
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<210> 5390

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5390

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Val	Thr	Phe	Asp	Gly	Leu	His	Ile	Ser	Leu	Cys	Asp	Leu	Lys	Lys	Gln

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      20      25      30
Ile Met Gly Arg Glu Lys Leu Lys Ala Ala Asp Cys Asp Leu Gln Ile
      35      40      45
Thr Asn Ala Gln Thr Lys Glu Tyr Thr Asp Asp Asn Ala Leu Ile
      50      55      60
Pro Lys Asn Ser Ser Val Ile Val Arg Arg Ile Pro Ile Gly Gly Val
      65      70      75      80
Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met
      85      90      95
Ala Thr Thr Lys Ala Val Cys Lys Asn Thr Ile Ser His Phe Phe Tyr
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Thr Leu Leu Leu Pro Leu
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<210> 5391
 <211> 797
 <212> DNA
 <213> Homo sapiens

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 780
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<210> 5392
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 5392

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 Thr Ile Lys Gly His Cys Asn Leu Ser Leu Asn Leu Leu Gly Ser Ser
 35 40 45
 Asn Pro Pro Ala Ser Ala Ser
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<210> 5393

<211> 4837

<212> DNA

<213> Homo sapiens

<400> 5393

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 420
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 480
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<211> 354

<212> PRT

<213> Homo sapiens

<400> 5394

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<211> 760

<212> PRT

<213> Homo sapiens

<400> 5396

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<400> 5397

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 Ser Arg Pro Pro Arg Val Val Gly Glu Ser Thr Gly Arg Lys Ala Gly
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Ser	Gln	Ser	Gln	Gln	Arg	Tyr	Gln	Pro	Gln	Gln	Asp	Met	Ser	Gln	Glu
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Gly	Tyr	Gly	Thr	Arg	Ser	Gln	Pro	Pro	Leu	Ala	Pro	Gly	Lys	Pro	Asn
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His	Glu	Asp	Leu	Asn	Leu	Ile	Gln	Gln	Glu	Arg	Pro	Ser	Ser	Leu	Pro
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<210> 5401

<211> 2674

<212> DNA

<213> Homo sapiens

<400> 5401

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<210> 5402

<211> 507

<212> PRT

<213> Homo sapiens

<400> 5402

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Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
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Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
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Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
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Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
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Ser	Val	Tyr	Ile	Trp	Pro	Ser	Ser	Asp	Ile	Asn	Thr	Ile	Pro	Gly	Glu

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Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser
      165      170      175
Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile
      180      185      190
Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val
      195      200      205
Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys
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Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu
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Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr
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Lys His Gln Gly Tyr Thr Glu Arg Ser Ile Pro Thr His Arg Glu Ile
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Gln Gln Ala Leu Val Asp Ala Gly Asp Lys Pro Ala Thr Phe Val Gly
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      420      425      430
Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly
      435      440      445
Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp
      450      455      460
Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly
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<210> 5403

<211> 451

<212> DNA

<213> Homo sapiens

<400> 5403

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<210> 5404

<211> 150

<212> PRT

<213> Homo sapiens

<400> 5404

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 35 40 45
 Trp Val Gly Ala Leu Glu Leu Pro Arg Leu Gln Ala Pro Leu Ser Gln
 50 55 60
 Pro Gly Thr His Ala Gly Ala Xaa Asp Pro Arg Pro Ser Leu Arg Lys
 65 70 75 80
 Ala Ser Leu Arg Ala Ala Ser Pro Ala Ala Ser Ser Ser Pro Trp Ala
 85 90 95
 Arg Val Pro Cys Ser Arg Ala Arg Arg Pro Lys Ser Ala Glu Leu Leu
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<210> 5405

<211> 1609

<212> DNA

<213> Homo sapiens

<400> 5405

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180
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240
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<210> 5406
 <211> 291
 <212> PRT
 <213> Homo sapiens

<400> 5406
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 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg
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 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg
 65 70 75 80
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn
 85 90 95
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe
 100 105 110
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn
 115 120 125
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln
 130 135 140
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn
 145 150 155 160
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp
 165 170 175
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp
 180 185 190
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr
 195 200 205
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 210 215 220
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser
 225 230 235 240
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg
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 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu
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<210> 5407
 <211> 2010
 <212> DNA
 <213> Homo sapiens

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<210> 5408

<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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Asn	Lys	Arg	Pro	Val	Ile	Arg	Met	Asn	Gly	Asp	Lys	Phe	Arg	Arg	Leu
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Val	Lys	Ala	Pro	Pro	Arg	Asn	Tyr	Ser	Val	Ile	Val	Met	Phe	Thr	Ala
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Leu	Gln	Leu	His	Arg	Gln	Cys	Val	Val	Cys	Lys	Gln	Ala	Asp	Glu	Glu
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Phe	Gln	Ile	Leu	Ala	Asn	Ser	Trp	Arg	Tyr	Ser	Ser	Ala	Phe	Thr	Asn
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Arg	Ile	Phe	Phe	Ala	Met	Val	Asp	Phe	Asp	Glu	Gly	Ser	Asp	Val	Phe
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Gln	Met	Leu	Asn	Met	Asn	Ser	Ala	Pro	Thr	Phe	Ile	Asn	Phe	Pro	Ala
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Phe	Ser	Ala	Glu	Gln	Ile	Ala	Arg	Trp	Ile	Ala	Asp	Arg	Thr	Asp	Val
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Gly	Leu	Leu	Leu	Ala	Val	Ile	Gly	Gly	Leu	Val	Tyr	Leu	Arg	Arg	Ser
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Asn	Met	Glu	Phe	Leu	Phe	Asn	Lys	Thr	Gly	Trp	Ala	Phe	Ala	Ala	Leu
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Cys	Phe	Val	Leu	Ala	Met	Thr	Ser	Gly	Gln	Met	Trp	Asn	His	Ile	Arg
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Leu	Leu	Phe	Asn	Gly	Gly	Val	Thr	Leu	Gly	Met	Val	Leu	Leu	Cys	Glu

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Ala	Gly Ile Gly Leu Val Val	Leu Phe Phe Ser Trp	Met Leu Ser Ile		
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<210> 5409
 <211> 2019
 <212> DNA
 <213> Homo sapiens

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<211> 198

<212> PRT

<213> Homo sapiens

<400> 5410

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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Met Ile Gly Asn Ile Phe Thr Gln Gln Pro Ser Tyr Tyr Ser Asp Leu
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 Asp Glu Thr Leu Pro Thr Ile Leu Gln Val Phe Ser Asn Ile Leu Gln
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 His Cys Gly Leu Gln Gly Asp Gly Ala Asn Thr Thr Pro Gln Lys Leu
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 Glu Glu Arg Gly Arg Leu Thr Pro Ser Asp Met Pro Leu Leu Glu Leu
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 Glu Ser Ala Ile Lys Lys Arg Arg Leu Glu Asp Ser Lys Leu Leu Gly
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 Asp Leu Trp Gln Arg Leu Ser His Ser Arg Lys Lys Leu Met Glu Ile
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 Phe Pro Val Ala Glu Asp Ile Ser Leu Leu Gln Gln Ala Ser Ser Val
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 Trp Glu Gly Val Asp Arg Arg Lys Ala Thr Asp Ala Lys Asp Pro Ser
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 Val Ile Glu Glu Pro Asn Gly Glu Pro Asn Gly Val Thr Val Thr Ala
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 325 330 335
 Glu Cys Met Gly Ala Ala Ala Ala Val Gly Pro Ala Met Cys Gly Val
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 Gly Glu Gly Phe Ile Leu Ala Cys Leu Glu Tyr Tyr His Tyr Asp Pro


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Pro Leu Leu Thr Ser Arg His Asn Val Phe Gln Asn Asp Glu Phe Asp
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Val Phe Ser Arg Asp Ser Val Asp Leu Ser Arg Val His Lys Gly Lys
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Ser Thr Arg Lys Glu Glu Asn Thr Arg Ser Leu Leu Asn Asp Lys Arg
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465              470              475              480
Glu Glu Val Pro Leu Gln Pro Gly Glu Ser Leu Pro Tyr His Ser Val
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Tyr Tyr Glu Asp Glu Tyr Asp Asp Thr Tyr Asp Gly Asn Gln Val Gly
      500              505              510
Ala Asn Asp Ala Asp Ser Met Thr Ser Ser Ser Ala Ala Gly His Ser
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Pro Ser Gln Val Leu Arg Thr Lys Val Pro Arg Glu Gly Gln Glu Glu
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Thr Gln Glu Arg Arg Lys Lys Glu Ala Asn Lys Ala Thr Arg Ala Asn
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 <211> 1677
 <212> DNA
 <213> Homo sapiens

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360

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<211> 426

<212> PRT

<213> Homo sapiens

<400> 5414

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Val Leu Val Ser Thr Thr Val Pro Thr Val His His Val Ser Asp Leu
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Glu Met Ser Ser Thr Leu Asp Cys Leu Pro Val Leu Ala Asp Trp Glu
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Asp Val Val Leu Leu Pro Ala Ser Gln Pro Glu Glu Asn Val Asp Cys
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Thr Val Pro Ile Ser Asp Ser Asp Leu Glu Ile Ser Phe Asn Ser Gly
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Glu Arg Leu Met Val Leu Lys Glu Leu Glu Met Ser Ser His Glu Asn
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Phe Gly Asp Ile Glu Glu Thr Pro Gln Lys Ser Glu Thr Ser Lys Ser
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Glu Glu Lys Pro Thr Ser Ser Asp Cys Ser Pro Val Arg Ser Ser Ser
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Cys Gly Tyr Phe Lys Trp Glu Gln Thr Leu Gln Lys Glu Arg Ala Asn
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<210> 5415

<211> 1493

<212> DNA

<213> Homo sapiens

<400> 5415

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 <212> PRT
 <213> Homo sapiens

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 <211> 2087
 <212> DNA
 <213> Homo sapiens

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 ttacgggtct gccatgtggt gattgttgtc caggactggt tcacagacct cagtctctac
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 1500
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 1560
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 1620
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 1680
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 1740
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 1800
 aagaactggt tccactacgc tgcccgatc tgggatgggg tgagaaagtc ctctgctctg
 1860
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 1920
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 1980
 ggcagcaggg ctgatggatg agggatcgtg gcttcccggc ccagagacat gaggtgtcca
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<210> 5418

<211> 528

<212> PRT

<213> Homo sapiens

<400> 5418

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Asn	Ile	Leu	Val	Lys	Glu	Gln	Thr	Gln	Leu	Gly	Val	Lys	Thr	Leu	Met
			20					25					30		
Arg	Leu	Leu	Lys	Glu	Pro	Glu	Lys	Glu	Arg	Asp	Ser	Asp	Ser	Asp	Phe
			35				40					45			
Ser	Pro	Leu	Gln	Gln	Thr	Glu	Gly	Cys	Gln	Arg	Arg	Asp	Lys	His	Phe
			50				55					60			
Arg	His	Ala	Glu	Asn	Pro	His	His	Pro	Leu	Lys	Thr	Ser	Ser	Arg	Ala

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65          70          75          80
Ala Pro Leu Glu Lys Pro Ile Val Leu Met Lys Pro Arg Glu Glu Gly
      85          90          95
Lys Gly Pro Val Ala Val Thr Gly Ala Ser Thr Pro Glu Gly Thr Ala
      100          105          110
Pro Pro Pro Pro Ala Ala Pro Ala Pro Pro Lys Gly Glu Lys Glu Gly
      115          120          125
Gln Arg Pro Thr Gln Pro Val Tyr Gln Ile Gln Asn Arg Gly Met Gly
      130          135          140
Thr Ala Ala Pro Ala Ala Met Asp Pro Val Val Gly Gln Ala Lys Leu
145          150          155          160
Leu Pro Pro Glu Arg Met Lys His Ser Ile Lys Leu Val Asp Asp Gln
      165          170          175
Met Asn Trp Cys Asp Ser Ala Ile Glu Tyr Leu Leu Asp Gln Thr Asp
      180          185          190
Val Leu Val Val Gly Val Leu Gly Leu Gln Gly Thr Gly Lys Ser Met
      195          200          205
Val Met Ser Leu Leu Ser Ala Asn Thr Pro Glu Glu Asp Gln Arg Thr
210          215          220
Tyr Val Phe Arg Ala Gln Ser Ala Glu Met Lys Glu Arg Gly Gly Asn
225          230          235          240
Gln Thr Ser Gly Ile Asp Phe Phe Ile Thr Gln Glu Arg Ile Val Phe
      245          250          255
Leu Asp Thr Gln Pro Ile Leu Ser Pro Ser Ile Leu Asp His Leu Ile
      260          265          270
Asn Asn Asp Arg Lys Leu Pro Pro Glu Tyr Asn Leu Pro His Thr Tyr
275          280          285
Val Glu Met Gln Ser Leu Gln Ile Ala Ala Phe Leu Phe Thr Val Cys
290          295          300
His Val Val Ile Val Val Gln Asp Trp Phe Thr Asp Leu Ser Leu Tyr
305          310          315          320
Arg Leu Trp Asp Leu Gly Cys Lys Cys Lys Ser Asn Ser His Ser Pro
      325          330          335
Gln Thr Pro Arg Phe Leu Gln Thr Ala Glu Met Val Lys Pro Ser Thr
      340          345          350
Pro Ser Pro Ser His Glu Ser Ser Ser Ser Ser Gly Ser Asp Glu Gly
      355          360          365
Thr Glu Tyr Tyr Pro His Leu Val Phe Leu Gln Asn Lys Ala Arg Arg
370          375          380
Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met His Leu Met Ile Asp
385          390          395          400
Gln Leu Met Ala His Ser His Leu Arg Tyr Lys Gly Thr Leu Ser Met
      405          410          415
Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro Asp Phe Leu Asp Ser
      420          425          430
Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp Ser Glu Ala Glu Ser
      435          440          445
Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser Pro Leu Phe Ser Leu
450          455          460
Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln Ser Leu Val Ser Lys
465          470          475          480
Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro Gln Leu Ser His Thr
      485          490          495
Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala Ala Arg Ile Trp Asp

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500 505 510
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 515 520 525

<210> 5419
 <211> 989
 <212> DNA
 <213> Homo sapiens

<400> 5419
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 120
 taccgagaga ggcgctacgg gttcaccagg agatactacc ggtctccttc gcggtaccgg
 180
 tcccgggtccc gtagcaggtc gcgctctcgg ggaagggtcgt actgcggaag ggcgtacgcg
 240
 atcgcgcggg gacagcgcta ctacggcttt ggtcgcacag tgtaccggga ggagcacagc
 300
 agatggaggg acagatccag gacgaggtcg cggagcagaa ccccccttcg cttaagtga
 360
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 420
 accaaccattg acttgccagc tagtctcaga actgttcctt cagccaaaga aacaagccgt
 480
 ggaaatagggt tatcaagtaa tggtgcaaa cctgaaaaat catgaatgtg gtctgcagac
 540
 attgatgaag aaaatctggt gctgtcggaa aaggtaacag aagatggaac tcgaaatccc
 600
 aatgaaaaaac ctaccagca aagaagcata gcttttagct ctaataattc tgtagcaaa
 660
 ccaatacaaa aatcagctaa agctgccaca gaagaggcat cttcaagatc accaaaaata
 720
 gatcagaaaa aaagtccata tggactgtgg atacctatct aaaagaagaa aactgatggc
 780
 taagtttgca tgaaaactgc actttattgc aagttagtgt ttctagcatt atcccatccc
 840
 tttgagccat tcaggggtac ttgtgcattt aaaaaccaac acaaaaagat gtaaatactt
 900
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 960
 ccaaaggtta tgcacagggtg ggagtccttt
 989

<210> 5420
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 5420
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<210> 5421
<211> 1239
<212> DNA
<213> Homo sapiens
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<400> 5421
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120
tcctctgcta agaccgctgc catgccagtg acggtaaccc gcaccaccat cacaaccacc
180
acgacgtcat cttcggggcct ggggtccccc atgategtgg ggtccctctg ggccttgaca
240
cagccctctg gtctcctctg cctgctgcag ctggtgtcta cctgcgtggc cttctcgtg
300
gtggctagcg tgggcgcctg gacgggggtc atgggcaact ggtccatgtt cacctggtgc
360
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420
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480
ctctcgccct ccatcatcta ccccaccacc tatgtccagt tcctgtccca cggccgttcg
540
cgggaccacg ccacgcgcgc caccttcttc tcctgcatcg cgtgtgtggc ttacgccacc
600
gaagtggcct ggacccgggc cggcccggc gagatcactg gctatatggc caccgtaccc
660
gggctgtgta aggtgctgga gaccttcgtt gcctgcatca tcttcgcgtt catcagcgac
720
cccaacctgt accagcacca gccggccctg gagtgggtcg tggcggtgta cgccatctgc
780
ttcatcttag cggccatcgc catcctgctg aacctggggg agtgcaccaa cgtgctaccc
840

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 960
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 1020
 tggctgtggc catcctgacg gccatcaacc tactggcgta tgtggctgac ctggtgcact
 1080
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 1140
 aacctctttg ttcttggtgc ccgagtttct tttatggagt acttctttcc cccgccttcc
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 1239

<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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Ser	Ser	Gly	Leu	Gly	Ser	Pro	Met	Ile	Val	Gly	Ser	Pro	Arg	Ala
		20						25				30		Leu
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Cys
		35				40					45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser
	50					55				60				Met
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr
65				70					75					80
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro
			85					90					95	Leu
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Phe
			100					105				110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe
		115					120					125		Leu
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe
	130					135					140			Ser
Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg
145				150					155					160
Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu
			165					170					175	Leu
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile
		180						185				190		Ser
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val
	195						200				205			Ala
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu
	210					215					220			Asn
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe
225				230					235					240
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu
			245						250				255	Phe
Ser	Gly	Pro	Ser	Thr	Ser	Ser	Met	Arg	Ser	Met	Ala	Ala	Ser	Leu
														Gly

260 265 270
Ala Arg Glu Met
275

<210> 5423
<211> 2427
<212> DNA
<213> Homo sapiens

<400> 5423
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120
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180
tttcatgata aggaatatcg gaatgctgtg agtaagtata ccatggcttt acagcagaag
240
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300
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360
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420
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600
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660
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720
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780
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840
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1020
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1140
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1320

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 1380
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 1440
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 2040
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 2160
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 2280
 aacttgcctc tgagcctggg ctgatctgag aaacaggtgt gacaagagca tgaaccagag
 2340
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 2400
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<210> 5424

<211> 570

<212> PRT

<213> Homo sapiens

<400> 5424

Met	Ala	Ala	Ala	Gly	Leu	His	Ser	Asn	Val	Arg	Leu	Leu	Ser	Ser	Leu
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Leu	Leu	Thr	Met	Ser	Asn	Asn	Asn	Pro	Glu	Leu	Phe	Ser	Pro	Pro	Gln
			20				25					30			
Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35				40					45				
Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
		50				55				60					
Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser

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65              70              75              80
Ala Ser Thr Pro Gln Ser Gln Cys Leu Pro Ser Glu Ile Glu Val Lys
85              90              95
Tyr Lys Met Ala Glu Cys Tyr Thr Met Leu Lys Gln Asp Lys Asp Ala
100            105            110
Ile Ala Ile Leu Asp Gly Ile Pro Ser Arg Gln Arg Thr Pro Lys Ile
115            120            125
Asn Met Met Leu Ala Asn Leu Tyr Lys Lys Ala Gly Gln Glu Arg Pro
130            135            140
Ser Val Thr Ser Tyr Lys Glu Val Leu Arg Gln Cys Pro Leu Ala Leu
145            150            155            160
Asp Ala Ile Leu Gly Leu Leu Ser Leu Ser Val Lys Gly Ala Glu Val
165            170            175
Ala Ser Met Thr Met Asn Val Ile Gln Thr Val Pro Asn Leu Asp Trp
180            185            190
Leu Ser Val Trp Ile Lys Ala Tyr Ala Phe Val His Thr Gly Asp Asn
195            200            205
Ser Arg Ala Ile Ser Thr Ile Cys Ser Leu Glu Lys Lys Ser Leu Leu
210            215            220
Arg Asp Asn Val Asp Leu Leu Gly Ser Leu Ala Asp Leu Tyr Phe Arg
225            230            235            240
Ala Gly Asp Asn Lys Asn Ser Val Leu Lys Phe Glu Gln Ala Gln Met
245            250            255
Leu Asp Pro Tyr Leu Ile Lys Gly Met Asp Val Tyr Gly Tyr Leu Leu
260            265            270
Ala Arg Glu Gly Arg Leu Glu Asp Val Glu Asn Leu Gly Cys Arg Leu
275            280            285
Phe Asn Ile Ser Asp Gln His Ala Glu Pro Trp Val Val Ser Gly Cys
290            295            300
His Ser Phe Tyr Ser Lys Arg Tyr Ser Arg Ala Leu Tyr Leu Gly Ala
305            310            315            320
Lys Ala Ile Gln Leu Asn Ser Asn Ser Val Gln Ala Leu Leu Leu Lys
325            330            335
Gly Ala Ala Leu Arg Asn Met Gly Arg Val Gln Glu Ala Ile Ile His
340            345            350
Phe Arg Glu Ala Ile Arg Leu Ala Pro Cys Arg Leu Asp Cys Tyr Glu
355            360            365
Gly Leu Ile Glu Cys Tyr Leu Ala Ser Asn Ser Ile Arg Glu Ala Met
370            375            380
Val Met Ala Asn Asn Val Tyr Lys Thr Leu Gly Ala Asn Ala Gln Thr
385            390            395            400
Leu Thr Leu Leu Ala Thr Val Cys Leu Glu Asp Pro Val Thr Gln Glu
405            410            415
Lys Ala Lys Thr Leu Leu Asp Lys Ala Leu Thr Gln Arg Pro Asp Tyr
420            425            430
Ile Lys Ala Val Val Lys Lys Ala Glu Leu Leu Ser Arg Glu Gln Lys
435            440            445
Tyr Glu Asp Gly Ile Ala Leu Leu Arg Asn Ala Leu Ala Asn Gln Ser
450            455            460
Asp Cys Val Leu His Arg Ile Leu Gly Asp Phe Leu Val Ala Val Asn
465            470            475            480
Glu Tyr Gln Glu Ala Met Asp Gln Tyr Ser Ile Ala Leu Ser Leu Asp
485            490            495
Pro Asn Asp Gln Lys Ser Leu Glu Gly Met Gln Lys Met Glu Lys Glu

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          500          505          510
Glu Ser Pro Thr Asp Ala Thr Gln Glu Glu Asp Val Asp Asp Met Glu
          515          520          525
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala
          530          535          540
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala
545          550          555          560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu
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<210> 5425

<211> 639

<212> DNA

<213> Homo sapiens

<400> 5425

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180
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240
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300
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480
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540
gccnacgggg tggtggtgg gatctaccgg ctctcaggcg tgtcttccaa catccagagg
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639

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<210> 5426

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5426

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Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
          20          25          30
Ser Cys Asp Arg Gly Cys Leu Ala Ala Ile Leu Ala Ser Thr Ser Ala
          35          40          45
Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
          50          55          60
Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

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65 70 75 80
 Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro
 85 90 95
 Glu Leu

<210> 5427
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 5427
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 120
 tgaggataca tcagagggca aaatggatac agatactctg aaaaaacgtg cattctagct
 180
 gggattgggt cctccacact gtgtccaaaa ggtatgttgg ggttgctgaa gtagataaac
 240
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<210> 5428
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 5428
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 20 25 30
 Phe Gly His Ser Val Glu Asp Pro Ile Pro Ala Arg Met His Val Phe
 35 40 45
 Ser Glu Tyr Leu Tyr Pro Phe Cys Pro Leu Met Tyr Pro Gln His Leu
 50 55 60
 Glu Glu His Leu Ala Cys Ser Arg Tyr Ser Thr Arg Ile Phe Asp Leu
 65 70 75 80
 Phe Val Gly Leu Phe Met Thr Glu Ser Cys Ser Val Ala Gln Thr Gly
 85 90 95
 Val Gln Tyr Ser Asp
 100

<210> 5429
 <211> 612
 <212> DNA
 <213> Homo sapiens

<400> 5429

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<210> 5430

<211> 94

<212> PRT

<213> Homo sapiens

<400> 5430

Pro	Ala	Gly	Gly	Lys	Ala	Pro	Gly	Gln	His	Gly	Gly	Phe	Val	Val	Thr
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Val	Lys	Gln	Glu	Arg	Gly	Glu	Gly	Pro	Arg	Ala	Gly	Glu	Lys	Gly	Ser
		20					25					30			
His	Glu	Glu	Glu	Val	Arg	Val	Pro	Ala	Leu	Ser	Trp	Gly	Arg	Pro	Arg
	35					40					45				
Ala	Pro	Ala	Pro	Ala	Ser	Lys	Pro	Arg	Pro	Arg	Leu	Asp	Leu	Asn	Cys
	50				55					60					
Leu	Trp	Leu	Arg	Pro	Gln	Pro	Ile	Phe	Leu	Trp	Lys	Leu	Arg	Pro	Arg
65				70				75					80		
Pro	Val	Pro	Ala	Ala	Thr	Pro	Leu	Thr	Gly	Pro	Leu	Pro	Leu		
			85					90							

<210> 5431

<211> 3005

<212> DNA

<213> Homo sapiens

<400> 5431

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 180

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420
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480
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720
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<210> 5432

<211> 863

<212> PRT

<213> Homo sapiens

<400> 5432

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Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser	Ala	Asn
			20					25					30		
Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu

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      35      40      45
Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala Ala Ala
 50      55      60
Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu Leu Thr
65      70      75      80
His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly Leu Asp
      85      90      95
Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala Gly Ser
      100      105      110
Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr
      115      120      125
Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys Ala Pro
      130      135      140
Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys Gln Arg
145      150      155      160
Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly Arg Gly
      165      170      175
Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly Thr Arg
      180      185      190
Ala Pro Pro Gln Pro Ser Gly Ser Arg Pro Asp Thr Val Thr Leu Arg
      195      200      205
Ser Ala Lys Ser Glu Glu Ser Leu Ser Ser Gln Ala Ser Gly Ala Gly
      210      215      220
Leu Gln Arg Leu His Arg Leu Arg Arg Pro His Ser Ser Ser Asp Ala
225      230      235      240
Phe Pro Val Gly Pro Ala Pro Ala Gly Ser Cys Glu Ser Leu Ser Ser
      245      250      255
Ser Ser Ser Ser Glu Ser Ser Ser Ser Glu Ser Ser Ser Ser Ser Ser
      260      265      270
Glu Ser Ser Ala Ala Gly Leu Gly Ala Leu Ser Gly Ser Pro Ser His
      275      280      285
Arg Thr Ser Ala Trp Leu Asp Asp Gly Asp Glu Leu Asp Phe Ser Pro
      290      295      300
Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp Phe Asp Pro Leu Thr
305      310      315      320
Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro Ala Pro Pro Ala Ser
      325      330      335
Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro Pro Arg Val Thr Pro
      340      345      350
Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro Ala Ser Pro Ala Ala
      355      360      365
Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val Pro Pro Ala Val Leu
370      375      380
Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser Ala Thr Pro Thr Pro
385      390      395      400
Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His Leu Ile Pro Leu Leu
      405      410      415
Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala Cys Gln Gln Glu Met
      420      425      430
Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu Gly Pro Asp Met Glu
      435      440      445
Ser Pro Leu Pro Pro Pro Pro Leu Ser Leu Leu Arg Pro Gly Gly Ala
      450      455      460
Pro Pro Pro Pro Pro Lys Asn Pro Ala Arg Leu Met Ala Leu Ala Leu

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465          470          475          480
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          485          490          495
Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser
          500          505          510
Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro
          515          520          525
Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro
          530          535          540
Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg
545          550          555          560
Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser
          565          570          575
Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala
          580          585          590
Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe
          595          600          605
Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro
          610          615          620
Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser
625          630          635          640
Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp
          645          650          655
Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro
          660          665          670
Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro
          675          680          685
Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu
          690          695          700
His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys
705          710          715          720
Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg
          725          730          735
Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro
          740          745          750
Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Pro Pro Ala His
          755          760          765
Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln
          770          775          780
Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly
785          790          795          800
Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro
          805          810          815
Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn
          820          825          830
Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Pro Tyr Pro Thr
          835          840          845
Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys
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<210> 5433

<211> 385

<212> DNA

<213> Homo sapiens

<400> 5433
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120
ctgggtataa gaagctcctc tggctccag agttctcgga gtaacccctc catccaagcc
180
acgctcaata agactgtgct ttctcttcc ttaaataacc acccacagac atctgttccc
240
aacgcatctg ctcttcaccc ttctctcgt ctgttttccc ttagcaaccc atctcttccc
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385

<210> 5434
<211> 128
<212> PRT
<213> Homo sapiens

<400> 5434
Asp Leu Thr Asn Leu His Tyr Ser Thr Pro Leu Pro Ala Ser Leu Asp
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Thr Thr Asp His His Phe Gly Ser Met Ser Val Gly Asn Ser Val Asn
20 25 30
Asn Ile Pro Ala Ala Met Thr His Leu Gly Ile Arg Ser Ser Ser Gly
35 40 45
Leu Gln Ser Ser Arg Ser Asn Pro Ser Ile Gln Ala Thr Leu Asn Lys
50 55 60
Thr Val Leu Ser Ser Ser Leu Asn Asn His Pro Gln Thr Ser Val Pro
65 70 75 80
Asn Ala Ser Ala Leu His Pro Ser Leu Arg Leu Phe Ser Leu Ser Asn
85 90 95
Pro Ser Leu Ser Thr Thr Asn Leu Ser Gly Pro Ser Arg Arg Arg Gln
100 105 110
Pro Pro Val Ser Pro Leu Thr Leu Ser Pro Gly Pro Glu Ala His Gln
115 120 125

<210> 5435
<211> 617
<212> DNA
<213> Homo sapiens

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120
ccttgataa gtatactttg tataacttct ggcaaaccat aattatgaac tcacattact
180
atagtactat aatactgcag aaagggatct tgcgtttcag aaatgtcact catccagttt
240

tcttccctt tctctaacc catctccctc ccaggctcat ggtttctgtt gcaatcctct
 300
 ttctccttac acaaggcaag aagttttctt accaatagat cagacctgtg aaggactgcc
 360
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 420
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 480
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<210> 5436

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

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His	Pro	Leu	Ile	Ala	Arg	Ala	Lys	Gly	Lys	Thr	Met	Ala	Ser	Ser	Asp
		20					25					30			
Gly	Thr	Ile	Arg	Ala	Asn	Leu	Tyr	Phe	Lys	Ile	Leu	Gln	Pro	Lys	Met
		35				40					45				
Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
	50					55				60					
Leu	Leu	Val	Arg	Lys	Leu	Ala	Leu	Cys	Lys	Glu	Lys	Glu	Asp	Cys	
65				70				75					80		
Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
			85					90					95		
Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
		100					105						110		
Tyr	Tyr	Ser	Thr	Ile	Val	Met									
		115													

<210> 5437

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 5437

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 300

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<210> 5438

<211> 245

<212> PRT

<213> Homo sapiens

<400> 5438

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Gly	Ser	Asn	His	Ala	Leu	Gly	Ala	Asn	Val	Glu	Leu	Trp	Ile	Met	Leu
			20					25					30		
Leu	Gln	Val	Val	Arg	Glu	Gly	Lys	Phe	Ser	Gly	Phe	Leu	Thr	Ser	Cys
		35				40					45				
Ser	Leu	Leu	Leu	Pro	Arg	Ala	Ala	Gln	Ile	Leu	Ala	Ala	Glu	Ala	Gly
	50				55					60					
Leu	Pro	Ser	Ser	Arg	Ser	Phe	Met	Gly	Phe	Ala	Ala	Pro	Phe	Thr	Asn

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65          70          75          80
Lys Arg Lys Ala Tyr Ser Glu Arg Arg Ile Met Gly Tyr Ser Met Gln
      85          90          95
Glu Met Tyr Glu Val Val Ser Asn Val Gln Glu Tyr Arg Glu Phe Val
      100          105          110
Pro Trp Cys Lys Lys Ser Leu Val Val Ser Ser Arg Lys Gly His Leu
      115          120          125
Lys Ala Gln Leu Glu Val Gly Phe Pro Pro Val Met Glu Arg Tyr Thr
      130          135          140
Ser Ala Val Ser Met Val Lys Pro His Met Val Lys Ala Val Cys Thr
      145          150          155          160
Asp Gly Lys Leu Phe Asn His Leu Glu Thr Ile Trp Arg Phe Ser Pro
      165          170          175
Gly Ile Pro Ala Tyr Pro Arg Thr Cys Thr Val Asp Phe Ser Ile Ser
      180          185          190
Phe Glu Phe Arg Ser Leu Leu His Ser Gln Leu Ala Thr Met Phe Phe
      195          200          205
Asp Glu Val Val Lys Gln Asn Val Ala Ala Phe Glu Arg Arg Ala Ala
      210          215          220
Thr Lys Phe Gly Pro Glu Thr Ala Ile Pro Arg Glu Leu Met Phe His
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Glu Val His Gln Thr
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<210> 5439

<211> 4234

<212> DNA

<213> Homo sapiens

<400> 5439

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660
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720

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<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Arg	Gln	Leu	Arg	Cys	Leu	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu	
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Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Leu	Glu	Met	Leu	Asn	Asp
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Ser	Gln	Tyr	Asn	Pro	Lys	Arg	Gln	Thr	Leu	Val	Phe	Ser	Ala	Thr	Leu
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Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
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Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile
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			165						170					175	
Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser
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Ile Glu Lys Ser Glu Tyr Arg Asn Phe Gln Ala Cys Leu His Asn Ser
      340              345              350
Trp Ile Glu Gln Ala Ala Ala Ala Leu Glu Ile Glu Leu Glu Glu Asp
      355              360              365
Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln
      370              375              380
Lys Gln Met Lys Val Leu Lys Lys Glu Leu Arg His Leu Leu Ser Gln
385              390              395              400
Pro Leu Phe Thr Glu Ser Gln Lys Thr Lys Tyr Pro Thr Gln Ser Gly
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<210> 5441

<211> 1635

<212> DNA

<213> Homo sapiens

<400> 5441

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<210> 5442

<211> 250

<212> PRT

<213> Homo sapiens

<400> 5442

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		20					25				30				
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
		35				40					45				
Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
	50				55				60						
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65				70					75					80	
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
		85					90						95		
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Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
	115					120						125			
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Ile Leu Pro Val Asn Glu Gly Lys Lys Leu Lys Glu Lys Leu Lys Pro				
	180		185	190
Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln Leu Glu Ile				
	195		200	205
Val Cys Leu Ile Asp Pro Gly Cys Phe Arg Glu Ile Asp Glu Leu Ile				
	210		215	220
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<210> 5443

<211> 2021

<212> DNA

<213> Homo sapiens

<400> 5443

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<210> 5444

<211> 438

<212> PRT

<213> Homo sapiens

<400> 5444

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			20					25						30	
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
			35				40					45			
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
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Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
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Leu	Asp	Val	Ile	Glu	Arg	Asp	Leu	His	Arg	Gln	Phe	Pro	Phe	His	Glu

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										100			105			110								
Leu	Lys	Ala	Tyr	Thr	Leu	Tyr	Arg	Pro	Glu	Glu	Gly	Tyr	Cys	Gln	Ala									
										115			120			125								
Gln	Ala	Pro	Ile	Ala	Ala	Val	Leu	Leu	Met	His	Met	Pro	Ala	Glu	Gln									
										130			135			140								
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Tyr	Ser	Glu	Lys	Leu	Glu	Ala	Ile	Gln	Leu	Asp	Gly	Glu	Ile	Leu	Phe									
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Ser	Leu	Leu	Gln	Lys	Val	Ser	Pro	Val	Ala	His	Lys	His	Leu	Ser	Arg									
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Gln	Lys	Ile	Asp	Pro	Leu	Leu	Tyr	Met	Thr	Glu	Trp	Phe	Met	Cys	Ala									
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Phe	Ser	Arg	Thr	Leu	Pro	Trp	Ser	Ser	Val	Leu	Arg	Val	Trp	Asp	Met									
										210			215			220								
Phe	Phe	Cys	Glu	Gly	Val	Lys	Ile	Ile	Phe	Arg	Val	Gly	Leu	Val	Leu									
										225			235			240								
Leu	Lys	His	Ala	Leu	Gly	Ser	Pro	Glu	Lys	Val	Lys	Ala	Cys	Gln	Gly									
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Gln	Tyr	Glu	Thr	Ile	Glu	Arg	Leu	Arg	Ser	Leu	Ser	Pro	Lys	Ile	Met									
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Gln	Glu	Ala	Phe	Leu	Val	Gln	Glu	Val	Val	Glu	Leu	Pro	Val	Thr	Glu									
										275			280			285								
Arg	Gln	Ile	Glu	Arg	Glu	His	Leu	Ile	Gln	Leu	Arg	Arg	Trp	Gln	Glu									
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Thr	Arg	Gly	Glu	Leu	Gln	Cys	Arg	Ser	Pro	Pro	Arg	Leu	His	Gly	Ala									
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Lys	Ala	Ile	Leu	Asp	Ala	Glu	Pro	Gly	Pro	Arg	Pro	Ala	Leu	Gln	Pro									
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Ser	Pro	Ser	Ile	Arg	Leu	Pro	Leu	Asp	Ala	Pro	Leu	Pro	Gly	Ser	Lys									
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Ala	Lys	Pro	Lys	Pro	Pro	Lys	Gln	Ala	Gln	Lys	Glu	Gln	Arg	Lys	Gln									
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Met	Lys	Gly	Arg	Gly	Gln	Leu	Glu	Lys	Pro	Pro	Ala	Pro	Asn	Gln	Ala									
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Met	Val	Val	Ala	Ala	Ala	Gly	Asp	Ala	Cys	Pro	Pro	Gln	His	Val	Pro									
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<211> 1187
<212> DNA
<213> Homo sapiens
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<210> 5446

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5446

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			20					25					30		
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		35					40					45			
Gly	Thr	Gln	Trp	Phe	His	Pro	Gln	Val	Cys	Ser	Asn	Arg	His	His	Ser
	50					55					60				
Pro	Arg	Pro	His	Ala	Asp	Ser	Asp	Thr	Arg	Ala	His	Ser	Pro	Arg	Ser

65		70		75		80									
His	Ala	Asp	Ser	Asp	Met	Arg	Ala	His	Ser	Leu	Ser	His	Asp	Ser	Gln
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<210> 5447

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5447

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1260

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<210> 5448
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 5448
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 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu
 50 55 60
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn
 65 70 75 80
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr
 85 90 95
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu
 100 105 110
 Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala Lys Phe Asn Gly
 115 120 125
 Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu Asn Phe Leu Lys Arg
 130 135 140
 Phe Gln Leu Thr Lys Leu Pro Pro Tyr Leu Ile Phe Cys Ile Lys Arg
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 Phe Thr Lys Asn Asn Phe Phe Val Glu Lys Asn Pro Thr Xaa Cys Gln
 165 170 175
 Phe Pro Tyr Tyr Lys Cys Gly Ser Glu Arg Ile Leu Val
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<210> 5449
 <211> 1359
 <212> DNA
 <213> Homo sapiens

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<210> 5450

<211> 293

<212> PRT

<213> Homo sapiens

<400> 5450

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Glu	Met	Lys	Glu	Arg	Gly	Gly	Asn	Gln	Thr	Ser	Gly	Ile	Asp	Phe	Phe
		20					25					30			
Ile	Thr	Gln	Glu	Arg	Ile	Val	Phe	Leu	Asp	Thr	Gln	Pro	Ile	Leu	Ser
	35					40					45				
Pro	Ser	Ile	Leu	Asp	His	Leu	Ile	Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro
	50				55					60					
Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr	Val	Glu	Met	Gln	Ser	Leu	Gln	Ile

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65          70          75          80
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      85          90          95
Trp Phe Thr Asp Leu Ser Leu Tyr Arg Phe Leu Gln Thr Ala Glu Met
      100          105          110
Val Lys Pro Ser Thr Pro Ser Pro Ser His Glu Ser Ser Ser Ser Ser
      115          120          125
Gly Ser Asp Glu Gly Thr Glu Tyr Tyr Pro His Leu Val Phe Phe Gln
      130          135          140
Asn Lys Ala Arg Arg Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met
      145          150          155          160
His Leu Met Ile Asp Gln Leu Met Ala His Ser His Leu Arg Tyr Lys
      165          170          175
Gly Thr Leu Ser Met Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro
      180          185          190
Asp Phe Leu Asp Ser Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp
      195          200          205
Ser Glu Ala Glu Ser Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser
      210          215          220
Pro Leu Phe Ser Leu Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln
      225          230          235          240
Ser Leu Val Ser Lys Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro
      245          250          255
Gln Leu Ser His Thr Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala
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<210> 5451

<211> 1184

<212> DNA

<213> Homo sapiens

<400> 5451

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540

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<210> 5452

<211> 206

<212> PRT

<213> Homo sapiens

<400> 5452

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Arg	Lys	Gly	Ser	His	Leu	Leu	Ser	Leu	Ala	Glu	Pro	Leu	Pro	Pro	Tyr
		20					25				30				
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
		35				40					45				
Leu	Ser	Pro	Ala	Leu	Ser	Gln	Thr	Thr	Gln	Lys	Ser	Gly	His	Leu	Trp
		50				55					60				
Ala	Pro	Gly	Met	Val	Thr	Glu	Glu	Lys	His	Ala	Val	Pro	Val	Ser	Pro
65					70					75				80	
Gly	Phe	Cys	Gln	Lys	Ile	Glu	Gln	Val	Gln	Leu	Thr	His	Cys	Tyr	Cys
			85					90						95	
Arg	Ser	Leu	Lys	Leu	Pro	Gly	Leu	Val	Leu	Asp	Pro	Ser	Arg	Asn	His
			100				105						110		
Gln	Val	Arg	His	Leu	Glu	Pro	Pro	Gly	Glu	Gly	Pro	Pro	Ser	Arg	Ala
		115				120					125				
Leu	Lys	Glu	Leu	His	Glu	Ile	Arg	Asn	Cys	Leu	Met	Lys	Cys	Ile	Ser
		130				135					140				
Leu	Tyr	Leu	Glu	Asp	Glu	Ala	Gln	Thr	Pro	Thr	Pro	Leu	Ser	Pro	Pro
145					150					155				160	
Gly	Leu	Gly	Met	Ser	Pro	Ala	Ala	Arg	Pro	Arg	Ser	Phe	Pro	Gly	Gly
			165						170					175	
Leu	Gly	Glu	Val	Gly	Ala	Gly	Thr	Ile	Ser	Val	Pro	Ser	Thr	Leu	Thr
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<210> 5453
<211> 1974
<212> DNA
<213> Homo sapiens

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<210> 5454

<211> 320

<212> PRT

<213> Homo sapiens

<400> 5454

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			20					25					30		
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
			35					40					45		
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
			50					55				60			
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
					70					75				80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
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Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
					100					105				110	
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
					115					120				125	
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
								135				140			
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
					150					155				160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
					165					170				175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
					180					185				190	
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
					195					200				205	
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210	215	220
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	245	250
Gln Leu Val Gln Ala Leu Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp		255
	260	265
Arg Gly Pro Arg Pro Gly Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly		270
	275	280
Arg Pro Pro Pro Pro Thr Lys Pro Pro Glu Thr Glu Ala Gln Arg		285
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<210> 5455

<211> 975

<212> DNA

<213> Homo sapiens

<400> 5455

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<210> 5456
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 5456
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 35 40 45
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr
 50 55 60
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala
 65 70 75 80
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe
 85 90 95
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser
 100 105 110
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His
 115 120 125
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 130 135 140
 Ala Leu Ala Ala Ala
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<210> 5457
 <211> 448
 <212> DNA
 <213> Homo sapiens

<400> 5457
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 120
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 180
 taccgggtgg actcgggtgaa ggtaatgtgg actgtggagc tctgtgctgg tcactttcaa
 240
 ccctgaacct gatgctactt attttgcagt tctaagtgc aagtcggcct ggtggatgct
 300
 tcccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgtcac
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 420
 aaataaataa ataaataaaa gaaaaaaaa
 448

<210> 5458
 <211> 81
 <212> PRT

<213> Homo sapiens

<400> 5458

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Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly
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Asp Ser Arg Asp Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
 20          25          30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
 35          40          45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
 50          55          60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
 65          70          75          80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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 120
cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcggag gatggatggg
 180
gacagccgag atggcggcgg cggcaaggac gccaccgggt cggaggacta cgagaacctg
 240
ccgactagcg cctccgtgtc caccacatg acagcaggag cgatggccgg gatcctggag
 300
cactcgggtc tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat
 360
cccaaagccc agtacacaag tatctacgga gccctcaaga aaatcatgca gaccgaaggc
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 720
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 780
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 840
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 900
gaaaccctga atagaacaaa aacttttgaa tgctggattc aaaaaaaaaa aaaagtattc
 960

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 1020
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 1080
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 1140
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 1260
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<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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		20						25					30		
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
		35				40						45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50				55						60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
			85					90					95		
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
		100					105					110			
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
		115				120					125				
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
	130					135					140				
Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
145					150					155					

<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120
ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc
180
atatggagcg aaatatcttc ctgaatatgc agagaaaatt cctggtgaat ccacacagaa
240
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300
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc
360
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420
gaaaaattac atttcaagaa tctaaaacat tgagtccggg tgatagtctt tccacatttg
480
atactcgtat gtaccagata agtttgccctc tttagcaatc tcagtagaag acaatcaggt
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720
cctattaggc tacagttgag tacctcccat ctagataata agcattcaat tagaatgaat
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1080
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1140
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1320
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1620
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1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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 20           25           30
Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr
 35           40           45
Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu
 50           55           60
Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val
 65           70           75           80
Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys
 85           90           95
Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly
100           105           110
Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp
115           120           125
Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe
130           135           140
Arg Gln Lys Arg Ser Asp Leu Tyr Ala Val Glu Met Lys Lys Pro
145           150           155
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<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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120
gacaaaggcg agggacaaga gagagttaac atctagacag tggaaaaagc catgggtgtgt
180
ggtttctggg aaccaccaac acttgcaggt ttagcttttt cccagggttg actacaagaa
240
agaaaacccat gtttttgcaa gattaaaatg tggttgagtg tgcctaaatt aaccatcccc
300
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360
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420
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480
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540
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gtgaagcagc gcttcgagat gtacaactcg cagcaccggt cagcaatcag ctgcatccgg
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 660
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<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

Phe	Ser	Gly	Val	Cys	Phe	Ala	Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu
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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
		20					25						30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35				40					45				
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50				55				60						
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65				70					75					80	
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
			85					90					95		
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	
			100				105						110		

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 120
 ggggtgctgct ggagggagga cagacggaca ggcggcctgg gtggccggcc ccagaaaggc
 180
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 aacccccggc aggagacctc ccctgacccc tctgctgcct ctctgtggg accctccagt
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 480

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<210> 5466
<211> 134
<212> PRT
<213> Homo sapiens

<400> 5466
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20 25 30
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser
35 40 45
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile
50 55 60
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg
65 70 75 80
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro
85 90 95
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro
100 105 110
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro
115 120 125
Gly Gln Pro Arg Ser Ala
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<210> 5467
<211> 1329
<212> DNA
<213> Homo sapiens

<400> 5467
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120
cccggatcca gcttcctgga cttgggggat ctgaacgagt cggacttcct caacaatgcg
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600

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<210> 5468

<211> 363

<212> PRT

<213> Homo sapiens

<400> 5468

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Ser	Ser	Phe	Leu	Asp	Leu	Gly	Asp	Leu	Asn	Glu	Ser	Asp	Phe	Leu	Asn
		20					25						30		
Asn	Ala	His	Phe	Pro	Glu	His	Leu	Asp	His	Phe	Thr	Glu	Asn	Met	Glu
		35				40						45			
Asp	Phe	Ser	Asn	Asp	Leu	Phe	Ser	Ser	Phe	Phe	Asp	Asp	Pro	Val	Leu
	50				55					60					
Asp	Glu	Lys	Ser	Pro	Leu	Leu	Asp	Met	Glu	Leu	Asp	Ser	Pro	Thr	Pro
65				70					75					80	
Gly	Ile	Gln	Ala	Glu	His	Ser	Tyr	Ser	Leu	Ser	Gly	Asp	Ser	Ala	Pro
		85						90						95	
Gln	Ser	Pro	Leu	Val	Pro	Ile	Lys	Met	Glu	Asp	Thr	Thr	Gln	Asp	Ala
		100					105						110		
Glu	His	Gly	Ala	Trp	Ala	Leu	Gly	His	Lys	Leu	Cys	Ser	Ile	Met	Val
		115				120					125				
Lys	Gln	Glu	Gln	Ser	Pro	Glu	Leu	Pro	Val	Asp	Pro	Leu	Ala	Ala	Pro
	130					135					140				
Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Met	Ala	Thr	Thr	Pro	Leu	Leu	Gly
145				150					155					160	
Leu	Ser	Pro	Leu	Ser	Arg	Leu	Pro	Ile	Pro	His	Gln	Ala	Pro	Gly	Glu

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          180          185          190
Phe Leu Lys Val Thr Pro Glu Asp Leu Val Gln Met Pro Pro Thr Pro
          195          200          205
Pro Ser Ser His Gly Ser Asp Ser Asp Gly Ser Gln Ser Pro Arg Ser
          210          215          220
Leu Pro Pro Ser Ser Pro Val Arg Pro Met Ala Arg Ser Ser Thr Ala
          225          230          235          240
Ile Ser Ser Ser Pro Leu Leu Thr Ala Pro His Lys Leu Gln Gly Thr
          245          250          255
Ser Gly Pro Leu Val Leu Thr Glu Glu Glu Lys Arg Thr Leu Ile Ala
          260          265          270
Glu Gly Tyr Pro Ile Pro Thr Lys Leu Pro Leu Thr Lys Ser Glu Glu
          275          280          285
Lys Ala Leu Lys Lys Ile Arg Arg Lys Ile Lys Asn Lys Ile Ser Ala
          290          295          300
Gln Glu Ser Arg Arg Lys Lys Lys Glu Tyr Met Asp Ser Leu Glu Lys
          305          310          315          320
Lys Val Glu Ser Cys Ser Thr Glu Asn Leu Glu Leu Arg Lys Lys Val
          325          330          335
Glu Thr Leu Glu Asn Ala Asn Ser Phe Ser Ser Gly Ile Gln Pro Leu
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Leu Cys Ser Leu Ile Gly Leu Glu Asn Pro Thr
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<210> 5469

<211> 1292

<212> DNA

<213> Homo sapiens

<400> 5469

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acggagttaa cccaggtggt gcagcatgac acggcctgta ccatcgagc caccggccagc
180
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300
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420
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660

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 1292

<210> 5470

<211> 427

<212> PRT

<213> Homo sapiens

<400> 5470

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Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
		20						25					30		
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
		35					40					45			
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
	50				55						60				
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
	65				70				75					80	
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
			85					90						95	
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
			100					105					110		
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
		115				120						125			
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
					135						140				
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
	145				150					155				160	
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
			165					170						175	
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
			180					185					190		
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

195 200 205
 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly
 210 215 220
 Trp Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro
 225 230 235 240
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly
 245 250 255
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val
 260 265 270
 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser
 275 280 285
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val
 290 295 300
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu
 305 310 315 320
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile
 325 330 335
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro
 340 345 350
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp
 355 360 365
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser
 370 375 380
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu
 385 390 395 400
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Glu Val Gln Met Ala Leu
 405 410 415
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met
 420 425

<210> 5471
 <211> 534
 <212> DNA
 <213> Homo sapiens

<400> 5471
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 ctggccccac tacgcggggc ccagagccag ggtgggggat gcagagaccg ggcgtgcggg
 120
 ttgccagggtg tggcgccat gtgtgcccgt gggcagagta cagagacaca agcttgtgtg
 180
 gacacgaatg ttagctatg tgcgagtga cacggagtgg tgagtgcagg gacccaggc
 240
 cggcctgcgt cgggtgcgag ggcataatagg ggcgtgcacg cagtcttgga ggtgtgtgca
 300
 cagagccccc ggcacccgcg tgtgtgcaaa gacacaggaa cccgtctgcg tggcgctgtg
 360
 tgtgcaaccc aaggagggtg gcgcttgac tccaaagtgt gcgcttatcc ggatgtggat
 420
 gtgggggcag ccggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gaccacaga
 480
 gcatatgtgt ccatgcctgg tgctgtgact catgtccctg gggggggcac gcgt
 534

<210> 5472
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 5472
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 Pro Arg Leu Pro Pro His Pro His Pro Asp Lys Arg Thr Leu Trp Ser
 20 25 30
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly
 35 40 45
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr
 50 55 60
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln
 65 70 75 80
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile
 85 90 95
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His
 100 105 110
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys
 115 120 125
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser
 130 135 140
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala
 145 150 155 160
 Ala

<210> 5473
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 5473
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 120
 catcttcttg ggctgcagg agacctgaca gatgccaaaa caaaggaaca gttgggatcc
 180
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcattg
 240
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt
 300
 actggccaag gaaagcagtc ggagcaacca tacaatttgg ttggacact ttacaacatc
 360
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggcta tagcttattt
 420
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca
 480
 gggcactttg gaacttgagg tgggagactg gaaggataat aggaggatcc ggatttttgc
 540

ttttgatcac gacctcttta gctttgcaga ttgatcttt gggaagtggc ctgtggttct
 600
 tatcaccaat cctaaatcac tcctttatag ttgtggtgaa catgaaccac tagaaagact
 660
 tcttactca acccacatta gattggtaac a
 691

<210> 5474
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 5474
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 20 25 30
 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr
 35 40 45
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His
 50 55 60
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys
 65 70 75 80
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser
 85 90 95
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn
 100 105 110
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg
 115 120 125
 Leu Leu His Ser Thr His Ile Arg Leu Val Thr
 130 135

<210> 5475
 <211> 628
 <212> DNA
 <213> Homo sapiens

<400> 5475
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 gacaagtacg ggaagcccaa caagaggaaa ggcttcaatg aagggtgtg ggagatccag
 120
 aacaaccccc acgccagcta cagcgccctt ccgccagtga gctcctccga cagcgaggcc
 180
 cccgaggcca accccgccga cggcagtgac gctgacgagg acgatgagga ccgggggggc
 240
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac
 300
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgctgcgct aaagatgtcg
 360
 gtctcgaaac gagcccgaag ggcctccagc gacctggatc aggccagcgt gtcccatcc
 420
 gaagaggaga actcggaag ctcattctgag tcgagaaga ccagcgacca ggacttcaca
 480

cctgagaaga aagcagcggt ccgggcgcca cggagggggc ctctgggggg acggaaaaaa
 540
 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct
 600
 gagccggtgg ccatggcgcg gtcggcgt
 628

<210> 5476
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 5476
 Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr
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 20 25 30
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser
 35 40 45
 Ala Pro Pro Pro Val Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn
 50 55 60
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val
 65 70 75 80
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ser Asp Arg Met Glu
 85 90 95
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg
 100 105 110
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala
 115 120 125
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn
 130 135 140
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr
 145 150 155 160
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly
 165 170 175
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys
 180 185 190
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser
 195 200 205
 Ala

<210> 5477
 <211> 727
 <212> DNA
 <213> Homo sapiens

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 120
 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggccatat
 180

gggcccccc gcccatgggg ttgggctggg cttatatgtg cctacgttag tctgtgtgga
 240
 gcccttgccc agcgggggag aaaaagggtgg cttctgggtcc gtctgtataa aacatggccc
 300
 ctcacctgtc ggccccccac acagctggca ggctgggctg gcctctcacc cctggcctcc
 360
 cctggacccc tggttggtc ctcaacttca ctctccgcac ttagtgcccg gccgccccca
 420
 gactcatcgt cgctcagccc atagggaagc ccaggcctgg ccccagaga gtctccttcc
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 gagtctctct cgaagcccat gagctgggtca ctgttgccgt cgccttcttc ctcttctct
 540
 tcctctctaa actccagatc ctggcctagt agcaaatac tctccaatac caggggccccg
 600
 ggtccttctg cgagggagtc ttcagtatcc actttgaccc cctcgcatctt cacgggctgc
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 720
 gcggccg
 727

<210> 5478
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 5478
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 Pro Trp Gly Trp Ala Gly Pro Tyr Ser Ala Tyr Val Ser Leu Cys Gly
 20 25 30
 Ala Pro Gly Gln Arg Gly Arg Lys Arg Trp Leu Leu Val Arg Leu Tyr
 35 40 45
 Lys Thr Trp Pro Leu Thr Cys Arg Pro Pro Thr Gln Leu Ala Gly Trp
 50 55 60
 Ala Gly Leu Ser Pro Leu Ala Ser Pro Gly Pro Leu Ala Gly Ser Ser
 65 70 75 80
 Thr Ser Leu Ser Ala Leu Ser Ala Arg Pro Pro Pro Asp Ser Ser Ser
 85 90 95
 Leu Ser Pro

<210> 5479
 <211> 1386
 <212> DNA
 <213> Homo sapiens

<400> 5479
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 cgggagcagc gggagcgcca ggagcaggag cggaggctgc aggcagaaaag ggacaagcga
 120
 atgcgagagg agcagctggc acgggaggcc gagggccggg cggagcggga ggcggaggcc
 180

cggaggcggg aggagcagga ggcacgagag aaggcgcagg ccgagcagga ggagcaggag
 240
 cggctgcaga agcagaaaga ggaggccgaa gctcggtcgc gggagaggc ggagcggcag
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 420
 caggacagca aggaggccaa cgccaacggt tccagcccag agcctgtgaa agctgtggag
 480
 gctcggcccc cagggtgca gaaggaggct gtgcagaaag aggagcccat cccacaggag
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 660
 agccgaacac cagagacact cctgcccttt gcagaggcag aagccttctt caagaaagct
 720
 gtggtgcagt ccccgagggt cacagaagtc ctttaaggag gtttgccttg gatccgggca
 780
 cagttgtgag ggctcctctg catcacctac caggatgtct ggaggagaaa aagacagaac
 840
 aaagatggaa gtggcctggg cccctggggg tgggtcctct ctgttgtttt taatctgcac
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 960
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 1020
 tcttcccttg gggagggggc acctgtagta ttgccttga tttggtggg tacagtggat
 1080
 gtgaatactg taaatagctt gtgctcagac tcctctgcgt ggagagggtg ggtgcaggag
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 1200
 aggggggatcc caggctcggg gatgggggac accttgggac acaggatact ggttgcttca
 1260
 ggggtaccca tgccccctgc cctgccttg aatcagtgtt actgcatctg attaaatgct
 1320
 tccagaaata aagaataatt ctgccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1380
 aaaaaa
 1386

<210> 5480

<211> 251

<212> PRT

<213> Homo sapiens

<400> 5480

Ala	Gly	Thr	Thr	Asp	Arg	Glu	Glu	Ala	Thr	Arg	Leu	Leu	Ala	Glu	Lys
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Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Arg	Arg
			20				25						30		
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

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      35      40      45
Glu Ala Glu Ala Arg Ala Glu Arg Glu Ala Glu Ala Arg Arg Arg Glu
  50      55      60
Glu Gln Glu Ala Arg Glu Lys Ala Gln Ala Glu Gln Glu Glu Gln Glu
  65      70      75      80
Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu
      85      90      95
Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu
      100      105      110
Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg
      115      120      125
Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys
      130      135      140
Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu
      145      150      155      160
Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro
      165      170      175
Ile Pro Gln Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala
      180      185      190
Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly
      195      200      205
Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro
      210      215      220
Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala
      225      230      235      240
Val Val Gln Ser Pro Gln Val Thr Glu Val Leu
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<210> 5481
 <211> 1513
 <212> DNA
 <213> Homo sapiens

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<400> 5481
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  120
ccggcagcca atcaggagag cgctcgctcc tgactcgacc ggcccacgct tcccgccagt
  180
cccctaacc tgaggctgcc gcgcggcggt cactgcgccg gggtagtggg cccagtggtt
  240
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  360
gcctacggca gcaacctgct gacagagagg atccacctcc gaaacccctc ggcgggcgttc
  420
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  480
agtcaaaactt ggcattggagg gatagccacc atttttcaga gtcctggcga tgaattgtgg
  540
ggagtagtat ggaaaatgaa caaaagcaat ttaaattctc tggatgagca agaagggggt
  600

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aaaagtggaa tgtatgttgt aatagaagtt aaagttgcaa ctcaagaagg aaaagaaata
 660
 acctgtcgaa gttatctgat gacaaattac gaaagtgttc ccccatcccc acagtataaa
 720
 aagattatgt gcatgggtgc aaaagaaaat ggtttgccgc tggagtatca agagaagtta
 780
 aaagcaatag aaccaaata ctatacagga aaggtctcag aagaaattga agacatcatc
 840
 aaaaaggggg aaacacaaac tctttagaac ataacagaat atatctaagg gtattctatg
 900
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 1020
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 1080
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 1260
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 1380
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 aaaaaaaaa aaa
 1513

<210> 5482

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5482

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Phe	Leu	Tyr	Phe	Ala	Tyr	Gly	Ser	Asn	Leu	Leu	Thr	Glu	Arg	Ile	His
		20					25					30			
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp
		35				40					45				
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50				55				60						
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65			70						75				80		
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
		85				90						95			
Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
	100					105					110				
Ala	Thr	Gln	Glu	Gly	Lys	Glu	Ile	Thr	Cys	Arg	Ser	Tyr	Leu	Met	Thr

115	120	125
Asn Tyr Glu Ser Ala Pro Pro Ser Pro Gln Tyr Lys Lys Ile Ile Cys		
130	135	140
Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr Gln Glu Lys Leu		
145	150	155
Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val Ser Glu Glu Ile		
165	170	175
Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu		
180	185	

<210> 5483
 <211> 1552
 <212> DNA
 <213> Homo sapiens

<400> 5483
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 120
 ttcacctaca tcgagctctgc ctccggagctc agaggggggt ttgactggag cctccacttc
 180
 cagtgggagc agctctcccc agagcagaag gctcggcgcc tggacccac ggagcccatc
 240
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 300
 gggaaatatg atatggacat ggacatctgg ggtggggaga actttgaaat ctccttccga
 360
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 420
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 480
 aagcggacag ctgaagtgtg gatggatgaa tacaagcaat actattacgc tgcccgccca
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 cgctgccaga gcttcaagtg gtacctggag aatatctacc ctgaactcag catccccaag
 660
 ggttcttcca tccagaaggg caatatccga cagagacaga agtgacctga atctcaaagg
 720
 cagaacaacc aagaaacccc aaacctaaag ttgagccctc gtgccaaggt caaaggcgaa
 780
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 900
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 960
 ctctgcctcg atacagatat gtccgtgat ggcaccgaga acggcaagga aatcgctcgc
 1020
 aacccatgtg agtcctcact catgagccag cactgggaca tggtagctc ttgaggaccc
 1080
 ctgccagaag cagcaagggc catgggggtg tgcttcctg gaccagaaca gactggaaac
 1140

tgggcagcaa gcagcctgca accacctcag acatcctgga ctgggaggtg gaggcagagc
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 ccctgattgg tatctggaga cagaaaccta atgggaagtg tttattgttc cttttcctac
 1380
 aaaggaagca gtctctggag gccagaaaga aaagccttct ttttactag gccaggacta
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 cattgagaga tgaagaatgg aggttggttc caaaagaaat aaagagaaac ttagaagttg
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 1552

<210> 5484
 <211> 357
 <212> PRT
 <213> Homo sapiens

<400> 5484
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 35 40 45
 Glu Leu Arg Gly Gly Phe Asp Trp Ser Leu His Phe Gln Trp Glu Gln
 50 55 60
 Leu Ser Pro Glu Gln Lys Ala Arg Arg Leu Asp Pro Thr Glu Pro Ile
 65 70 75 80
 Arg Thr Pro Ile Ile Ala Gly Gly Leu Phe Val Ile Asp Lys Ala Trp
 85 90 95
 Phe Asp Tyr Leu Gly Lys Tyr Asp Met Asp Met Asp Ile Trp Gly Gly
 100 105 110
 Glu Asn Phe Glu Ile Ser Phe Arg Val Trp Met Cys Gly Gly Ser Leu
 115 120 125
 Glu Ile Val Pro Cys Ser Arg Val Gly His Val Phe Arg Lys Lys His
 130 135 140
 Pro Tyr Val Phe Pro Asp Gly Asn Ala Asn Thr Tyr Ile Lys Asn Thr
 145 150 155 160
 Lys Arg Thr Ala Glu Val Trp Met Asp Glu Tyr Lys Gln Tyr Tyr Tyr
 165 170 175
 Ala Ala Arg Pro Phe Ala Leu Glu Arg Pro Phe Gly Asn Val Glu Ser
 180 185 190
 Arg Leu Asp Leu Arg Lys Asn Leu Arg Cys Gln Ser Phe Lys Trp Tyr
 195 200 205
 Leu Glu Asn Ile Tyr Pro Glu Leu Ser Ile Pro Lys Glu Phe Ser Ile
 210 215 220
 Gln Lys Gly Asn Ile Arg Gln Arg Gln Lys Cys Leu Glu Ser Gln Arg
 225 230 235 240
 Gln Asn Asn Gln Glu Thr Pro Asn Leu Lys Leu Ser Pro Cys Ala Lys
 245 250 255
 Val Lys Gly Glu Asp Ala Lys Ser Gln Val Trp Ala Phe Thr Tyr Thr

260 265 270
 Gln Lys Ile Leu Gln Glu Glu Leu Cys Leu Ser Val Ile Thr Leu Phe
 275 280 285
 Pro Gly Ala Pro Val Val Leu Val Leu Cys Lys Asn Gly Asp Asp Arg
 290 295 300
 Gln Gln Trp Thr Lys Thr Gly Ser His Ile Glu His Ile Ala Ser His
 305 310 315 320
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<210> 5485

<211> 1549

<212> DNA

<213> Homo sapiens

<400> 5485

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<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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<210> 5487

<211> 1716

<212> DNA

<213> Homo sapiens

<400> 5487

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<211> 272

<212> PRT

<213> Homo sapiens

<400> 5488

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 35 40 45
 Gly Pro Ala His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met Lys Arg
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 65 70 75 80
 Gly Ile Ala Gly Ser Met Ala Thr Leu Leu His Asp Ala Val Met Asn
 85 90 95
 Pro Ala Glu Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His
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 Arg Ser Ala Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu
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<212> PRT

<213> Homo sapiens

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Cys	Asn	Val	Val	Val	Arg	Tyr	Gly	Leu	Leu	Thr	Asn	Glu	Ile	Ser	Met	130	135	140	
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Val	Ala	Thr	Glu	Gly	Ser	Arg	Glu	Leu	Lys	Arg	Glu	Leu	Ile	Asn	Glu	165	170	175	
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Asp	Gln	Ala	Glu	Tyr	Gln	Ala	Lys	Ile	Arg	Asp	Leu	Gln	Gln	Ala	Ala	195	200	205	
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Gln	Phe	Pro	Val	Glu	His	Val	Gln	Leu	Leu	Cys	Ile	Asn	Cys	Met	Val	225	230	235	240
Ala	Val	Gly	His	Gly	Ser	Asp	Leu	Arg	Lys	Val	Glu	Gly	Thr	His	His	245	250	255	
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305                310                315                320
Thr Pro Gln Gly Arg Ile Gln Ala Lys Lys Trp Ser Arg Val Pro Phe
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<210> 5491

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<212> DNA

<213> Homo sapiens

<400> 5491

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Val	Ile	Ser	Tyr	Ala	Ile	Met	Phe	Leu	Tyr	Ile	Ser	Leu	Ala	Leu	Gly						
										625				630				635			
His	Ile	Lys	Ser	Cys	Arg	Arg	Leu	Leu	Val	Asp	Ser	Lys	Val	Ser	Leu						
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Gly	Ile	Ala	Gly	Ile	Leu	Ile	Val	Leu	Ser	Ser	Val	Ala	Cys	Ser	Leu						
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Gly	Val	Phe	Ser	Tyr	Ile	Gly	Leu	Pro	Leu	Thr	Leu	Ile	Val	Ile	Glu						
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Val	Ile	Pro	Phe	Leu	Val	Leu	Ala	Val	Gly	Val	Asp	Asn	Ile	Phe	Ile						
										690				695				700			
Leu	Val	Gln	Ala	Tyr	Gln	Arg	Asp	Glu	Arg	Leu	Gln	Gly	Glu	Thr	Leu						
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Asp	Gln	Gln	Leu	Gly	Arg	Val	Leu	Gly	Glu	Val	Ala	Pro	Ser	Met	Phe						
										725				730				735			
Leu	Ser	Ser	Phe	Ser	Glu	Thr	Val	Ala	Phe	Phe	Leu	Gly	Ala	Leu	Ser						
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Val	Met	Pro	Ala	Val	His	Thr	Phe	Ser	Leu	Phe	Ala	Gly	Leu	Ala	Val						
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Phe	Ile	Asp	Phe	Leu	Leu	Gln	Ile	Thr	Cys	Phe	Val	Ser	Leu	Leu	Gly						
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Leu	Asp	Ile	Lys	Arg	Gln	Glu	Lys	Asn	Arg	Leu	Asp	Ile	Phe	Cys	Cys						
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Val	Arg	Gly	Ala	Glu	Asp	Gly	Thr	Ser	Val	Gln	Ala	Ser	Glu	Ser	Cys						
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										820				825				830			
Trp	Met	Arg	Pro	Ile	Val	Ile	Ala	Ile	Phe	Val	Gly	Val	Leu	Ser	Phe						
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Ser	Ile	Ala	Val	Leu	Asn	Lys	Val	Asp	Ile	Gly	Leu	Asp	Gln	Ser	Leu						
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Ser	Met	Pro	Asp	Asp	Ser	Tyr	Met	Val	Asp	Tyr	Phe	Lys	Ser	Ile	Ser						
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Gln	Tyr	Leu	His	Ala	Gly	Pro	Pro	Val	Tyr	Phe	Val	Leu	Glu	Glu	Gly						
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Asp	Tyr	Phe	Asp	Trp	Val	Lys	Pro	Gln	Ser	Ser	Cys	Cys	Arg	Val	Asp						
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Asn	Ile	Thr	Asp	Phe	Cys	Asn	Ala	Ser	Val	Val	Asp	Pro	Ala	Cys							
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Val	Arg	Cys	Arg	Pro	Leu	Thr	Pro	Gly	Gly	Lys	Gln	Arg	Pro	Gln	Gly						
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Gly	Asp	Phe	Met	Arg	Phe	Leu	Pro	Met	Phe	Leu	Ser	Asp	Asn	Pro	Asn						

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Ile Leu Leu Gly His Gly Thr Arg Val Gly Ala Thr Tyr Phe Met Thr
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Tyr His Thr Val Leu Gln Thr Ser Ala Asp Phe Ile Asp Ala Leu Lys
          1045          1050          1055
Lys Ala Arg Leu Ile Ala Ser Asn Val Thr Glu Thr Met Gly Ile Asn
          1060          1065          1070
Gly Ser Ala Tyr Arg Val Phe Pro Tyr Ser Val Phe Tyr Val Phe Tyr
          1075          1080          1085
Glu Gln Tyr Leu Thr Ile Ile Asp Asp Thr Ile Phe Asn Leu Gly Val
          1090          1095          1100
Ser Leu Gly Ala Ile Phe Leu Val Thr Met Val Leu Leu Gly Cys Glu
1105          1110          1115          1120
Leu Trp Ser Ala Val Ile Met Cys Ala Thr Ile Ala Met Val Leu Val
          1125          1130          1135
Asn Met Phe Gly Val Met Trp Leu Trp Gly Ile Ser Leu Asn Ala Val
          1140          1145          1150
Ser Leu Val Asn Leu Val Met Ser Cys Gly Ile Ser Val Glu Phe Cys
          1155          1160          1165
Ser His Ile Thr Arg Ala Phe Thr Val Ser Met Lys Gly Ser Arg Val
          1170          1175          1180
Glu Arg Ala Glu Glu Ala Leu Ala His Met Gly Ser Ser Val Phe Ser
1185          1190          1195          1200
Gly Ile Thr Leu Thr Lys Phe Gly Gly Ile Val Val Leu Ala Phe Ala
          1205          1210          1215
Lys Ser Gln Ile Phe Gln Ile Phe Tyr Phe Arg Met Tyr Leu Ala Met
          1220          1225          1230
Val Leu Leu Gly Ala Thr His Gly Leu Ile Phe Leu Pro Val Leu Leu
          1235          1240          1245
Ser Tyr Ile Gly Pro Ser Val Asn Lys Ala Lys Ser Cys Ala Thr Glu
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<210> 5495

<211> 2414

<212> DNA

<213> Homo sapiens

<400> 5495

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120
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180
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240
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300
atgctgctat taaaaaggcc tgggatgac tcaagaaata tttggagccc aggtgtcctc
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420

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720
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1920
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1980
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2040

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 2280
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 2400
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<210> 5496

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5496

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			20					25					30		
Leu	Leu	Gly	Ser	Met	Ala	Leu	Ser	Asn	His	Tyr	Arg	Ser	Glu	Asp	Leu
		35				40						45			
Leu	Asp	Val	Asp	Thr	Ala	Ala	Gly	Gly	Phe	Gln	Gln	Arg	Gln	Gly	Leu
	50				55					60					
Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln
65			70						75					80	
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
		85						90					95		
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met
		100					105						110		
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys
		115				120						125			
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
	130				135					140					
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
145			150						155					160	
Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro
		165						170					175		
His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala
		180					185						190		
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr
	195					200						205			
Asn	Ala	Lys	Gly	Asp	Val	Glu	Glu	Val	Gln	Gly	Pro	Gly	Val	Val	Gly
	210					215				220					
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys
225			230						235						240
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
		245						250					255		
His	Phe	Leu	Tyr	Phe	Lys	Asp	Lys	Ile	Phe	Asn	Val	Ala	Ile	Pro	Arg

260 265 270

Phe His Met Ala Cys Pro Thr Phe Arg Val Ser Ile Ala Arg Leu Glu 275 280 285
Met Gly Pro Asp Glu Tyr Glu Glu Met Glu Glu Glu Glu Glu Glu 290 295 300
Glu Glu Glu Asp Glu Asp Asp Asp Ser Ala Asp Met Asp Glu Ser Asp 305 310 315 320
Glu Asp Asp Glu Glu Glu Arg Arg Arg Arg Val Phe Asp Val Pro Ile 325 330 335
Arg Arg Arg Arg Cys Ser Arg Leu Phe 340 345

<210> 5497
<211> 1056
<212> DNA
<213> Homo sapiens

<400> 5497

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120

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180

ccccgccatg tagctgttgg agagtagaaa aatagagcac gcctgatgtt tctaataatgag
240

aagactttta atagtaatga agaattccatg gcacttcctt caccctcaaa cacatggcag
300

tcaatccat acaggcccca aagtcactgt tagtgtgca gtggctcctg tggacattgg
360

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420

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480

gcttgggttt ctggactttt ctgaggcacc ggcagagggg tctcgttgct cccttgagtg
540

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660

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gaaaggactc gaccaccaca gctgagccac tagctgggcc atgcgaagag ttctaggtgc
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900

catttgaacg ggggccttgc tggtcgctc cctgcattca cccgcgcggc catccccgtca
960

tccaacagt gatcctaact gagcacgccc acggccctgg tctggcctgg gcaccggcga
1020

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<210> 5498

<211> 150

<212> PRT

<213> Homo sapiens

<400> 5498

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      20           25           30
Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr
      35           40           45
Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys
      50           55           60
Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met
65           70           75           80
Ala Arg Ser Gly Thr Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg
      85           90           95
Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser
      100          105          110
Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp
      115          120          125
Pro Ser Ala Gly Ala Ser Glu Lys Ser Arg Asn Pro Ser Arg Met Gly
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Thr Trp Gly Val Asn Phe
145           150

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<210> 5499

<211> 1918

<212> DNA

<213> Homo sapiens

<400> 5499

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120
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540
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600

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 720
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 1800
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 1860
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 1918

<210> 5500

<211> 426

<212> PRT

<213> Homo sapiens

<400> 5500

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      35      40      45
His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro
      50      55      60
Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Glu Asp Glu Asp Arg
      65      70      75      80
Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val
      85      90      95
Asp Ile Ala His Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg
      100      105      110
Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro
      115      120      125
Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His
      130      135      140
Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr
      145      150      155      160
Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr
      165      170      175
Asn Pro Trp Ser Met Lys Cys His Gln Gln Gln Leu Gln Arg Met Lys
      180      185      190
Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn
      195      200      205
Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly
      210      215      220
Thr Arg Gln His Gly Asp Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln
      225      230      235      240
Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Xaa Val
      245      250      255
Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met
      260      265      270
Asn Lys Tyr His Gly Arg Lys Leu Ser Val Gln Gly Phe Lys Glu Ala
      275      280      285
Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu
      290      295      300
Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg
      305      310      315      320
Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp
      325      330      335
Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu
      340      345      350
Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala
      355      360      365
Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe
      370      375      380
Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu
      385      390      395      400
Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile
      405      410      415
Val Thr Glu Ile Ser Glu Glu Ser Gly Glu
      420      425

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<210> 5501

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5501

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 180
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 240
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<210> 5502

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5502

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Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
		20					25					30			
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
		35					40				45				
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50				55				60						
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65			70					75				80			
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
		85					90					95			
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
		100					105					110			

<210> 5503

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5503

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1440
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1560
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1679

<210> 5504
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 5504
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 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val
 35 40 45
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro
 50 55 60
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro
 65 70 75 80
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile
 85 90 95
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn
 100 105 110
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala
 115 120 125
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys
 130 135 140
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg
 145 150 155 160
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys
 165 170 175
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile
 180 185 190
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala
 195 200 205
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly
 210 215 220
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu
 225 230 235 240
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn
 245 250 255
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser
 260 265 270
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser
 275 280 285
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro
 290 295 300
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu
 305 310 315 320
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala
 325 330 335
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg
 340 345 350
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met
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 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

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Pro Cys Gly Ser Trp Gly Thr Arg
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<210> 5505
<211> 1099
<212> DNA
<213> Homo sapiens

<400> 5505
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180
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240
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300
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540
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660
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780
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960
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1099

<210> 5506
<211> 280
<212> PRT
<213> Homo sapiens

<400> 5506

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 20 25 30
 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala
 35 40 45
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp
 50 55 60
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly
 65 70 75 80
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe
 85 90 95
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala
 100 105 110
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu
 115 120 125
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn
 130 135 140
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Thr Cys Leu Lys
 145 150 155 160
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu
 165 170 175
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg
 180 185 190
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala
 195 200 205
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln
 210 215 220
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn
 225 230 235 240
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp
 245 250 255
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser
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 Ile Thr Ile Gly Pro Pro Leu Pro
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<210> 5507

<211> 1658

<212> DNA

<213> Homo sapiens

<400> 5507

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 120
 aagcaatttc tcacctttga caaacagggtc ctctgattct atgcaatctg ggatgataca
 180
 gacagcatgt atgggtgaatg tcggacctac atcattcatt actatcttat ggatgatacg
 240
 gtggaaaattc gagagggtcca cgaacggaat gatgggagag atcctttccc actcctaattg
 300

aacgcgcagc gtgtgcccaa agttttggtg gaaaatgcaa agaacttccc tcagtgtgtg
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ctagaaatct ctgaccaaga agtggttgaa tggatactg ctaaagactt cattgttggg
420
aagtcactca ctatccttgg gagaactttc ttcatttatg atttgtatcc atttactcga
480
cggattattaca aagagaagtt tggaaatcact gatttaccac gtattgatgt gagcaagcgg
540
gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtggaaagat
600
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660
ctgggtgaatg ataacaaggt gcttcgttat ttggctgtac tggaatcccc catcccagaa
720
gacaaagacc gcagatttgt cttctcttac tttctagcta ccgacatgat cagtatcttt
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1560
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1658

<210> 5508

<211> 448

<212> PRT

<213> Homo sapiens

<400> 5508

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20	25	30	
Thr Pro Ser Asp Phe Asp Gln Leu Lys Gln Phe Leu Thr Phe Asp Lys			
35	40	45	
Gln Val Leu Arg Phe Tyr Ala Ile Trp Asp Asp Thr Asp Ser Met Tyr			
50	55	60	
Gly Glu Cys Arg Thr Tyr Ile Ile His Tyr Tyr Leu Met Asp Asp Thr			
65	70	75	80
Val Glu Ile Arg Glu Val His Glu Arg Asn Asp Gly Arg Asp Pro Phe			
85	90	95	
Pro Leu Leu Met Asn Arg Gln Arg Val Pro Lys Val Leu Val Glu Asn			
100	105	110	
Ala Lys Asn Phe Pro Gln Cys Val Leu Glu Ile Ser Asp Gln Glu Val			
115	120	125	
Leu Glu Trp Tyr Thr Ala Lys Asp Phe Ile Val Gly Lys Ser Leu Thr			
130	135	140	
Ile Leu Gly Arg Thr Phe Phe Ile Tyr Asp Cys Asp Pro Phe Thr Arg			
145	150	155	160
Arg Tyr Tyr Lys Glu Lys Phe Gly Ile Thr Asp Leu Pro Arg Ile Asp			
165	170	175	
Val Ser Lys Arg Glu Pro Pro Pro Val Lys Gln Glu Leu Pro Pro Tyr			
180	185	190	
Asn Gly Phe Gly Leu Val Glu Asp Ser Ala Gln Asn Cys Phe Ala Leu			
195	200	205	
Ile Pro Lys Ala Pro Lys Lys Asp Val Ile Lys Met Leu Val Asn Asp			
210	215	220	
Asn Lys Val Leu Arg Tyr Leu Ala Val Leu Glu Ser Pro Ile Pro Glu			
225	230	235	240
Asp Lys Asp Arg Arg Phe Val Phe Ser Tyr Phe Leu Ala Thr Asp Met			
245	250	255	
Ile Ser Ile Phe Glu Pro Pro Val Arg Asn Ser Gly Ile Ile Gly Gly			
260	265	270	
Lys Tyr Leu Gly Arg Thr Lys Val Val Lys Pro Tyr Ser Thr Val Asp			
275	280	285	
Asn Pro Val Tyr Tyr Gly Pro Ser Asp Phe Phe Ile Gly Ala Val Ile			
290	295	300	
Glu Val Phe Gly His Arg Phe Ile Ile Leu Asp Thr Asp Glu Tyr Val			
305	310	315	320
Leu Lys Tyr Met Glu Ser Asn Ala Ala Gln Tyr Ser Pro Glu Ala Leu			
325	330	335	
Ala Ser Ile Gln Asn His Val Arg Lys Arg Glu Ala Pro Ala Pro Glu			
340	345	350	
Ala Glu Ser Lys Gln Thr Glu Lys Asp Pro Gly Val Gln Glu Leu Glu			
355	360	365	
Ala Leu Ile Asp Thr Ile Gln Lys Gln Leu Lys Asp His Ser Cys Lys			
370	375	380	
Asp Asn Ile Arg Glu Ala Phe Gln Ile Tyr Asp Lys Glu Ala Ser Gly			
385	390	395	400
Tyr Val Asp Arg Asp Met Phe Phe Lys Ile Cys Glu Ser Leu Asn Val			
405	410	415	
Pro Val Asp Asp Ser Leu Val Lys Glu Leu Ile Arg Met Cys Ser His			
420	425	430	
Gly Glu Gly Lys Ile Asn Tyr Tyr Asn Phe Val Arg Ala Phe Ser Asn			

435 440 445

<210> 5509
 <211> 818
 <212> DNA
 <213> Homo sapiens

<400> 5509
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 ctatgtgaga ggaagtaagt atacacagcg taagagggtg gataaccaag tcatagaaga
 180
 aatgtttgga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccagggg
 240
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 360
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 660
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 720
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 780
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 818

<210> 5510
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 5510
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 20 25 30
 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly
 35 40 45
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro
 50 55 60
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys
 65 70 75 80
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

	85		90		95
His Ser Gly Glu Asn Leu Tyr Glu Cys					
	100		105		
<210>	5511				
<211>	379				
<212>	DNA				
<213>	Homo sapiens				
<400>	5511				
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120					
ctctgctgag	ttgctgagag	tctgtgttcc	tctctccact	tataggatgg	gtcctcatct
180					
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240					
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300					
tccatcaggg	ctgaatcctg	gtcgggtgtca	catgctgtctt	cggccccagc	gtccccctcca
360					
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379					

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<210> 5512
<211> 101
<212> PRT
<213> Homo sapiens
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<400> 5512
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 20          25          30
Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr
 35          40          45
Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu
 50          55          60
Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys
 65          70          75          80
Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu
 85          90          95
Ala Cys Asp Thr Pro
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<210> 5513
<211> 837
<212> DNA
<213> Homo sapiens
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<400> 5513
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 agactcgggg agccattgac catcgtctct gaggatggag actggtggac ggtgctgtct
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 360
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 420
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 480
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 720
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<210> 5514

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5514

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Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
		20					25						30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
		35				40					45				
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
		50			55					60					
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
65				70					75					80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85					90					95		
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
		100					105					110			
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
		115				120					125				
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
	130				135					140					
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
145				150					155					160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu


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      165      170      175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
      180      185      190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
      195      200      205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
      210      215      220
Ser Glu Gly Leu Arg Glu Ser Leu Ser Phe Tyr Ile Ser Leu Asn Asp
225      230      235      240
Glu Ala Val Ser Leu Asp Asp Ala
      245

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<210> 5515

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5515

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120
aagcttcagc tacaagccct tgagcaagag cacaagaagc tggctgccc ccttgaggaa
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360
taaattctccc ataccgttcc tggataaata cctccttctc gcgagcccg agggcctcga
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<210> 5516

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5516

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Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
  50      55      60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
  65      70      75      80
Ser Lys Val Ile Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
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<212> DNA

<213> Homo sapiens

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35 40 45Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His
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<212> PRT

<213> Homo sapiens

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 Gly Arg Thr Ala Ala Gln Met Ala Ala Phe Val Gly Gln His Asp Cys
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Met Lys Gln Arg Asp Met Asn Glu Val Leu Ala Met Lys Met His Tyr
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Asp Gly Phe Pro Val Tyr Gln Glu Lys Ile Ile Arg Glu Ser Ile Arg
Lys Phe Pro Tyr Cys Glu Ala Thr Leu Leu Gln Gln Leu Val Arg Ser
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His Lys Lys Ile Cys Lys Asn Leu Lys Asp Ile Tyr Glu Lys Gln Gln
Leu Glu Ala Ala Lys Glu Lys Arg Gln Glu Glu Asn His Gly Lys Leu
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<212> PRT

<213> Homo sapiens

<400> 5524

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Phe	Phe	Cys	Arg	Ile	Arg	Gly	Gly	Glu	Asp	Arg	Lys	Gln	Glu	Lys	Cys				
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His	Ser	Pro	Phe	Arg	Ile	Ile	Pro	Tyr	Leu	Ile	His	Val	His	His	Pro				
225										230					235				
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Glu	Lys	Ala	Val	Pro	Leu	Leu	Gly	Tyr	Leu	Pro	Gln	Asp	Leu	Ile	Gly				
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Thr	Ser	Ile	Leu	Ser	Tyr	Leu	His	Pro	Glu	Asp	Arg	Ser	Leu	Met	Val				
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His	Lys	Val	Arg	Thr	Ser	Pro	Leu	Asn	Glu	Asp	Val	Phe	Ala	Thr	Lys				
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Ile	Lys	Lys	Met	Asn	Asp	Asn	Asp	Lys	Asp	Ile	Thr	Glu	Leu	Gln	Glu				
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Gln	Ile	Tyr	Lys	Leu	Leu	Gln	Pro	Val	His	Val	Ser	Val	Ser	Ser					
405										410					415				
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Ile	Ala	Ser	Ser	Ser	Glu	Ala	Ser	Gly	His	Arg	Val	Glu	Glu	Thr	Lys				
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Phe	Lys	Pro	Val	Thr	Gly	Thr	Arg	Thr	Glu	Pro	Asn	Gly	Gly	Gly	Glu				
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 Tyr Gln Gln Ile Asn Cys Ile Asp Ser Val Ile Arg Tyr Leu Lys Ser
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 Thr Ala Met Leu Ser Leu Gly Ser Gly Ile Ser Gln Cys Gly Tyr Ser
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 740 745 750
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 Pro Gly Arg Glu Tyr Ala Ala Pro Gly Thr Ala Pro Glu Gly Leu His
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 820 825 830
 Pro Tyr Leu Asp Thr Phe Met Thr Val Phe Leu Pro Asp Pro Pro Val
 835 840 845
 Cys Pro Leu Leu Ser Pro Ser Phe Leu Pro Cys Pro Phe Leu Gly Ala
 850 855 860
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 865 870 875 880
 Thr Leu Asp Pro Pro Pro Ser Val Thr Ser Gln Arg Arg Glu Glu Glu
 885 890 895
 Lys Trp Glu Ala Gln Ser Glu Gly His Pro Phe Ile Thr Ser Arg Ser
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 Ser Glu Ser Pro Asp Gln Met Arg Arg Asn Thr Cys Pro Gln Thr Glu
 930 935 940

Tyr Gln Cys Val Thr Gly Asn Asn Gly Ser Glu Ser Ser Pro Ala Thr
 945 950 955 960
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 965 970 975
 Pro Thr Ala Ser Ala Leu Ser Thr Gly Ser Pro Pro Met Lys Asn Pro
 980 985 990
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 995 1000 1005
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 <211> 761
 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5526

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		20					25					30			
Asn	Phe	Thr	Leu	Leu	Ala	Ser	Leu	Gly	Leu	Ala	Ser	Ser	Lys	Thr	His
		35				40					45				
Glu	Ile	Thr	Gln	Leu	Glu	Ser	Trp	Glu	Glu	Pro	Phe	Met	Pro	Ala	Trp
	50					55				60					
Glu	Val	Val	Thr	Ser	Ala	Ile	Pro	Arg	Glu	Thr	Leu	Arg	Met	Ala	Phe
65					70				75					80	
Met	Arg	Glu	Leu	Ala	Ile	Glu	His	His	Ser	Ser	Lys	Tyr	Ala	His	Trp
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<211> 728

<212> DNA

<213> Homo sapiens

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<211> 176

<212> PRT

<213> Homo sapiens

<400> 5528

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			20					25				30			
Val	Thr	Gly	Leu	Lys	Leu	Ser	Gln	Asp	Leu	Asp	Asp	Leu	Ala	Ile	Leu
		35					40					45			
Tyr	Leu	Ala	Thr	Val	Gln	Ala	Ile	Ala	Leu	Gly	Thr	Arg	Phe	Ile	Ile
	50					55					60				
Glu	Ala	Met	Glu	Ala	Ala	Gly	His	Ser	Ile	Ser	Thr	Leu	Phe	Leu	Cys
65					70					75				80	
Gly	Gly	Leu	Ser	Lys	Asn	Pro	Leu	Phe	Val	Gln	Met	His	Ala	Asp	Ile
			85						90				95		
Thr	Gly	Met	Pro	Val	Val	Leu	Ser	Gln	Glu	Val	Glu	Ser	Val	Leu	Val
		100						105					110		
Gly	Ala	Ala	Val	Leu	Gly	Ala	Cys	Ala	Ser	Gly	Asp	Phe	Ala	Ser	Val
	115						120					125			
Gln	Glu	Ala	Met	Ala	Lys	Met	Ser	Lys	Val	Gly	Lys	Val	Val	Phe	Pro
	130				135						140				
Arg	Leu	Gln	Asp	Lys	Lys	Tyr	Tyr	Asp	Lys	Lys	Tyr	Gln	Val	Phe	Leu
145				150					155					160	
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<211> 2602

<212> DNA

<213> Homo sapiens

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2220					
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2340					
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2400					
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2460					
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2520					
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<211> 603

<212> PRT

<213> Homo sapiens

<400> 5530

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			20					25					30		
Leu	Asn	Leu	Cys	Ala	Arg	Arg	Arg	Thr	Arg	Val	Gln	Arg	Pro	Ile	Val
		35					40					45			
Arg	Leu	Leu	Ser	Cys	Pro	Gly	Thr	Val	Ala	Lys	Asp	Leu	Arg	Arg	Asp
	50					55					60				
Glu	Gln	Pro	Ser	Gly	Ser	Val	Glu	Thr	Gly	Phe	Glu	Asp	Lys	Ile	Pro
65				70						75				80	
Lys	Arg	Arg	Phe	Ser	Glu	Met	Gln	Asn	Glu	Arg	Arg	Glu	Gln	Ala	Gln
				85					90					95	
Arg	Thr	Val	Leu	Ile	His	Cys	Pro	Glu	Lys	Ile	Ser	Glu	Asn	Lys	Phe
			100					105					110		
Leu	Lys	Tyr	Leu	Ser	Gln	Phe	Gly	Pro	Ile	Asn	Asn	His	Phe	Phe	Tyr
		115					120					125			
Glu	Ser	Phe	Gly	Leu	Tyr	Ala	Val	Val	Glu	Phe	Cys	Gln	Lys	Glu	Ser
	130					135					140				
Ile	Gly	Ser	Leu	Gln	Asn	Gly	Thr	His	Thr	Pro	Ser	Thr	Ala	Met	Glu

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Asp Gln Leu Asn Thr Leu Leu Lys Glu Phe Gln Leu Thr Glu Glu Asn
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Thr Lys Leu Arg Tyr Leu Thr Cys Ser Leu Ile Glu Asp Met Ala Ala
225          230          235          240
Ala Tyr Phe Pro Asp Cys Ile Val Arg Pro Phe Gly Ser Ser Val Asn
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Thr Phe Gly Lys Leu Gly Cys Asp Leu Asp Met Phe Leu Asp Leu Asp
          260          265          270
Glu Thr Arg Asn Leu Ser Ala His Lys Ile Ser Gly Asn Phe Leu Met
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Cys Val Ile Glu Gly Asn Asn Cys Thr Phe Val Arg Asp Leu Ser Arg
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Ile Lys Pro Ser Gln Asn Thr Glu Thr Leu Glu Leu Leu Lys Glu
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Phe Phe Glu Tyr Phe Gly Asn Phe Ala Phe Asp Lys Asn Ser Ile Asn
465          470          475          480
Ile Arg Gln Gly Arg Glu Gln Asn Lys Pro Asp Ser Ser Pro Leu Tyr
          485          490          495
Ile Gln Asn Pro Phe Glu Thr Ser Leu Asn Ile Ser Lys Asn Val Ser
          500          505          510
Gln Ser Gln Leu Gln Lys Phe Val Asp Leu Ala Arg Glu Ser Ala Trp
          515          520          525
Ile Leu Gln Gln Glu Asp Thr Asp Arg Pro Ser Ile Ser Ser Asn Arg
          530          535          540
Pro Trp Gly Leu Val Ser Leu Leu Leu Pro Ser Ala Pro Asn Arg Lys
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<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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Lys	Glu	Gln	Tyr	Ser	Arg	Tyr	Gln	Lys	Ala	Ala	Arg	Gly	Gly	Gly	Ala
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Gln Arg Ile Pro Thr Ala Gly Ile Tyr Gly Ala Ser Tyr Val Pro Phe
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<210> 5533
 <211> 505
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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<400> 5534
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 Leu Ala Ser Leu Ser Ala Glu Glu Leu Lys Glu Leu Glu Arg Glu Leu
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 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys
 65 70 75 80
 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu
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 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg
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 Leu Gly Glu Cys Gly Lys Val Ala Glu Asp Lys Glu Glu Ser Glu Glu
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 Glu Leu Ile Phe Thr Glu Ser Asn Ser Glu Val Ser Glu Glu Val Tyr
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 <212> DNA
 <213> Homo sapiens

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<210> 5536

<211> 306

<212> PRT

<213> Homo sapiens

<400> 5536

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Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
65           70           75           80
Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
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Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala
      115          120          125
Thr Leu Val Phe Ala Ile Ala Ile Ser Gly Asn Leu Ser Asn Phe Leu
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      180          185          190
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      195          200          205
Leu Phe Ile Tyr Ile Pro Thr Ala Ile Leu Trp Ile Ile Pro Gln Lys
      210          215          220
Ala Val Arg Trp Ile Leu Val Met Ile Ala Leu Gly Ile Ser Gly Ser
225          230          235          240
Leu Leu Ala Met Thr Phe Trp Pro Ala Val Arg Glu Asp Asn Arg Arg
      245          250          255
Val Ala Leu Ala Thr Ile Val Thr Ile Val Leu Leu His Met Leu Leu
      260          265          270
Ser Val Gly Cys Leu Ala Tyr Phe Phe Asp Ala Pro Glu Met Asp His
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<210> 5537

<211> 2881

<212> DNA

<213> Homo sapiens

<400> 5537

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<211> 352

<212> PRT

<213> Homo sapiens

<400> 5538

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 Leu Gln Gln Leu Gln Ala Val Val Pro Gln Ile Asp Met Glu Gly Asp

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Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp
      115             120             125
Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp
      130             135             140
Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu Asp
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Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu Asn
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Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser
      180             185             190
Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp
      195             200             205
Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala Leu
      210             215             220
Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu
      225             230             235             240
Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu Ile
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Glu Ile Asn Ala Ser Pro Thr Met Ala Pro Ser Thr Ala Val Thr Ala
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Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys
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 <211> 1887
 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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 Leu Ala Ser Gly Ser Phe Asp Lys Thr Ala Ser Val Phe Leu Leu Glu
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 Ala Ser Gly Asp Lys Thr Ile Arg Ile Trp Asp Val Arg Thr Thr Lys
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 Ser Pro Asp Gly Gln Thr Ile Ala Val Gly Asn Lys Asp Asp Val Val
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 Thr Phe Ile Asp Ala Lys Thr His Arg Ser Lys Ala Glu Glu Gln Phe
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 Glu Val Glu Thr Gly Asp Lys Leu Trp Glu Val Gln Cys Glu Ser Pro
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<211> 1854

<212> DNA

<213> Homo sapiens

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4722

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<210> 5542

<211> 315

<212> PRT

<213> Homo sapiens

<400> 5542

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<211> 4021
<212> DNA
<213> Homo sapiens
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<211> 1141

<212> PRT

<213> Homo sapiens

<400> 5544

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<210> 5545

<211> 1932

<212> DNA

<213> Homo sapiens

<400> 5545

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1932

<210> 5546

<211> 183
 <212> PRT
 <213> Homo sapiens

<400> 5546
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 35 40 45
 Asn Glu Met Leu Leu Asn Phe Asn Asn Leu Ser Ser Ala Arg Leu Gln
 50 55 60
 Gln Met Ser Glu Arg Phe Leu His His Thr Arg Thr Leu Val Glu Met
 65 70 75 80
 Lys Arg Asp Leu Asp Ser Ile Phe Arg Arg Ile Arg Thr Leu Lys Gly
 85 90 95
 Lys Leu Ala Arg Gln His Pro Glu Ala Phe Ser His Ile Pro Glu Ala
 100 105 110
 Ser Phe Leu Glu Glu Glu Asp Glu Asp Pro Ile Pro Pro Ser Thr Thr
 115 120 125
 Thr Thr Ile Ala Thr Ser Glu Gln Ser Thr Gly Ser Cys Asp Thr Ser
 130 135 140
 Pro Asp Thr Val Ser Pro Ser Leu Ser Pro Gly Phe Glu Asp Leu Ser
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 His Val Gln Pro Gly Ser Pro Ala Ile Asn Gly Arg Ser Gln Thr Asp
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 Asp Glu Glu Met Thr Gly Glu
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<210> 5547
 <211> 1391
 <212> DNA
 <213> Homo sapiens

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<210> 5548

<211> 167

<212> PRT

<213> Homo sapiens

<400> 5548

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 35 40 45
 Phe Val Ile Pro Lys Lys Asn Val Pro Thr Ser Lys Arg Glu Thr Tyr
 50 55 60
 Thr Glu Asp Phe Ile Lys Lys Gln Ile Glu Glu Phe Asn Ile Gly Lys
 65 70 75 80
 Arg His Leu Ala Asn Met Met Gly Glu Asp Pro Glu Thr Phe Thr Gln
 85 90 95
 Glu Asp Ile Asp Arg Ala Ile Ala Tyr Leu Phe Pro Ser Gly Leu Phe
 100 105 110
 Glu Lys Arg Ala Arg Pro Val Met Lys His Pro Glu Gln Ile Phe Pro
 115 120 125
 Arg Gln Arg Ala Ile Gln Trp Gly Glu Asp Gly Arg Pro Phe His Tyr

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 <211> 1865
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 <213> Homo sapiens

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 5550

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			100					105					110		
Gln	Thr	Leu	Glu	Ala	Val	Lys	Arg	Lys	Gln	Phe	Glu	Lys	Tyr	His	Ala
		115				120					125				
Ala	Ser	Ala	Glu	Glu	Gln	Ala	Thr	Ile	Glu	Arg	Asn	Pro	Tyr	Thr	Ile
		130				135					140				
Phe	His	Gln	Ala	Leu	Lys	Asn	Cys	Glu	Pro	Met	Ile	Gly	Leu	Val	Pro
145				150					155					160	
Ile	Leu	Lys	Gly	Gly	Arg	Phe	Tyr	Gln	Val	Pro	Val	Pro	Leu	Pro	Asp
			165					170					175		
Arg	Arg	Arg	Arg	Phe	Leu	Ala	Met	Lys	Trp	Met	Ile	Thr	Glu	Cys	Arg
			180					185					190		
Asp	Lys	Lys	His	Gln	Arg	Thr	Leu	Met	Pro	Glu	Lys	Leu	Ser	His	Lys

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<210> 5551

<211> 1689

<212> DNA

<213> Homo sapiens

<400> 5551

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<210> 5552

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5552

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		20					25					30			
Tyr	Leu	Leu	Asp	Pro	Tyr	Val	Asn	Leu	Ala	Pro	Gly	Cys	Arg	Ser	Leu
	35					40				45					
Phe	Ser	Val	Ile	Val	Arg	Val	Val	Gly	Asp	Leu	Met	Leu	Arg	Ile	Gln
	50				55					60					
Arg	Ile	Gln	Asp	Phe	Thr	Pro	Lys	Leu	Leu	Val	Arg	Lys	Arg	Leu	
	65				70				75				80		
Leu	Gly	Leu	Glu	Pro	Glu	Gly	Pro	Ile	Ser	Asp	Leu	Glu	Pro	Val	Glu
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<211> 274

<212> DNA

<213> Homo sapiens

<400> 5553

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<210> 5554
<211> 90
<212> PRT
<213> Homo sapiens

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35 40 45
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys
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<210> 5555
<211> 414
<212> DNA
<213> Homo sapiens

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<210> 5556
<211> 115
<212> PRT
<213> Homo sapiens

<400> 5556
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35 40 45
 Gln Ala Lys Leu Glu Asp Ser Pro Asp Leu Arg Gly Ser Thr Arg Ser
 50 55 60
 Arg Cys Leu Leu Asp Leu Ser His Ser Ala His Pro Asn Leu Asn Pro
 65 70 75 80
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 Gln Leu Phe Pro Phe Ser His Ser Leu Ser Ala Ala Cys Arg Val His
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<210> 5557
 <211> 1970
 <212> DNA
 <213> Homo sapiens

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<210> 5558

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5558

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Ser	Val	Pro	Arg	Glu	Pro	Ile	Asp	Arg	Lys	Arg	Leu	Lys	Lys	Asp	Val
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Ser Trp Met Leu Gly Thr Trp Leu Ser Asp Pro Pro Gly Ala Gly Thr
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Gln Ile Thr Arg Lys Phe Arg Leu Asn Ser Glu Gly Lys Leu Glu Gln
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<210> 5559

<211> 3866

<212> DNA

<213> Homo sapiens

<400> 5559

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<210> 5560

<211> 1165

<212> PRT

<213> Homo sapiens

<400> 5560

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Asn	Gly	Thr	Tyr	Gly	Gln	Val	Tyr	Lys	Gly	Arg	His	Val	Lys	Thr	Gly
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Gln	Leu	Ala	Ala	Ile	Lys	Val	Met	Asp	Val	Thr	Glu	Asp	Glu	Glu	Glu
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Glu	Ile	Lys	Leu	Glu	Ile	Asn	Met	Leu	Lys	Lys	Tyr	Ser	His	His	Arg
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Asn	Ile	Ala	Thr	Tyr	Tyr	Gly	Ala	Phe	Ile	Lys	Lys	Ser	Pro	Pro	Gly
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His	Asp	Asp	Gln	Leu	Trp	Leu	Val	Met	Glu	Phe	Cys	Gly	Ala	Gly	Ser
			100					105					110		
Ile	Thr	Asp	Leu	Val	Lys	Asn	Thr	Lys	Gly	Asn	Thr	Leu	Lys	Glu	Asp
	115					120						125			
Trp	Ile	Ala	Tyr	Ile	Ser	Arg	Glu	Ile	Leu	Arg	Gly	Leu	Ala	His	Leu
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His	Ile	His	His	Val	Ile	His	Arg	Asp	Ile	Lys	Gly	Gln	Asn	Val	Leu
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Leu	Thr	Glu	Asn	Ala	Glu	Val	Lys	Leu	Val	Asp	Phe	Gly	Val	Ser	Ala
			165					170						175	
Gln	Leu	Asp	Arg	Thr	Val	Gly	Arg	Arg	Asn	Thr	Phe	Ile	Gly	Thr	Pro
			180				185						190		
Tyr	Trp	Met	Ala	Pro	Glu	Val	Ile	Ala	Cys	Asp	Glu	Asn	Pro	Asp	Ala
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Thr	Tyr	Asp	Tyr	Arg	Ser	Asp	Leu	Trp	Ser	Cys	Gly	Ile	Thr	Ala	Ile
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Glu	Met	Ala	Glu	Gly	Ala	Pro	Pro	Leu	Cys	Asp	Met	His	Pro	Met	Arg
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Lys	Trp	Ser	Lys	Lys	Phe	Ile	Asp	Phe	Ile	Asp	Thr	Cys	Leu	Ile	Lys
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Thr	Tyr	Met	Gln	Arg	Pro	Thr	Thr	Glu	Gln	Leu	Leu	Lys	Phe	Pro	Phe
	275					280						285			
Ile	Arg	Asp	Gln	Pro	Thr	Glu	Arg	Gln	Val	Arg	Ile	Gln	Leu	Lys	Asp
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His	Ile	Asp	Arg	Thr	Arg	Lys	Lys	Arg	Gly	Glu	Lys	Glu	Glu	Thr	Glu
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Tyr	Glu	Tyr	Ser	Gly	Ser	Glu	Glu	Glu	Asp	Ser	His	Gly	Glu	Glu	
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Glu Ala Arg	Arg Gln Gln Glu Arg Glu Gln Arg Arg Arg Glu Gln Glu				
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Glu Lys Arg	Arg Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu				
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Glu Arg Arg	Arg Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln				
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Glu Tyr Ile	Arg Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val				
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Arg Arg Pro	His Pro Gln His Ser Gln Gln Pro Pro Pro Pro Gln Gln				
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Glu Arg Ser	Lys Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr				
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Glu Pro Ala	Asp Arg Ala Arg Glu Val Pro Val Arg Thr Thr Ser Arg				
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Ser Pro Val	Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser Gly Gln				
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Gln Asn Ser	Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile Glu Pro				
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Arg Leu Leu	Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro Gly Ser				
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Gly Ser Ser	Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly Ser His				
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Pro Gly Ser	Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg Ser Ser				
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Ser Lys Ser	Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala Val Lys				
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Lys Pro Glu	Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro Ala Gly				
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Glu Val Asp	Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp				
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Val Arg Pro	Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu				
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Ser Gly Thr	Thr Asp Glu Glu Asp Asp Val Glu Gln Glu Gly Ala				
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Asp Glu Ser	Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu				
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Asn Leu Ser	Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His				
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Asp Asp Val	Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr				
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Leu Ile Val	Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His				
	755		760		765
Lys Ser Ser	Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln				

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Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys
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Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp
      820              825              830
Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu
      835              840              845
Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly
      850              855              860
Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile
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Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val
      885              890              895
Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu
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Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys
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Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys
945              950              955              960
Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe
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Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser
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Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp
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Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln
1025              1030              1035              1040
Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly
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Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr
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Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu
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Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val
1105              1110              1115              1120
Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn
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Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val
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 <211> 2089
 <212> DNA
 <213> Homo sapiens

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<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

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 Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys
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 Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr
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 Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg
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 Arg Ser Val Pro Phe Gln Met Leu Leu Leu Leu Glu Lys Met Gln Asp
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 Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln
 115 120 125
 Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr
 130 135 140
 Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu
 145 150 155 160
 Val Glu Arg Leu Gln Ala Leu Tyr Thr Ile Arg Val Lys Asp Ser Leu
 165 170 175
 Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu
 180 185 190
 Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr
 195 200 205
 Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser
 210 215 220
 Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys

225 230 235 240
 Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu
 245 250 255
 Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser
 260 265 270
 Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
 275 280 285
 Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu
 290 295 300
 Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
 305 310 315 320
 Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
 325 330 335
 Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
 340 345 350
 Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met
 355 360 365
 Lys Met Glu Cys
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<210> 5563
 <211> 2878
 <212> DNA
 <213> Homo sapiens

<400> 5563
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 420
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 720
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 780
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gacctggccc cttctcgcc cccgagtttc agtccctgcc ctgcagagga tctatttccg
900
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1080
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 2580
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 2640
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 2760
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 2878

<210> 5564

<211> 683

<212> PRT

<213> Homo sapiens

<400> 5564

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 Ser Ala Glu Arg Ala Leu Glu Glu Ala Val Ala Thr Gly Thr Leu Asn
 35 40 45
 Leu Ser Asn Arg Arg Leu Lys His Phe Pro Arg Gly Ala Ala Arg Ser
 50 55 60
 Tyr Asp Leu Ser Asp Ile Thr Gln Ala Asp Leu Ser Arg Asn Arg Phe
 65 70 75 80
 Pro Glu Val Pro Glu Ala Ala Cys Gln Leu Val Ser Leu Glu Gly Leu
 85 90 95
 Ser Leu Tyr His Asn Cys Leu Arg Cys Leu Asn Pro Ala Leu Gly Asn
 100 105 110
 Leu Thr Ala Leu Thr Tyr Leu Asn Leu Ser Arg Asn Gln Leu Ser Leu
 115 120 125
 Leu Pro Pro Tyr Ile Cys Gln Leu Pro Leu Arg Val Leu Ile Val Ser
 130 135 140
 Asn Asn Lys Leu Gly Ala Leu Pro Pro Asp Ile Gly Thr Leu Gly Ser
 145 150 155 160
 Leu Arg Gln Leu Asp Val Ser Ser Asn Glu Leu Gln Ser Leu Pro Ser
 165 170 175
 Glu Leu Cys Gly Leu Ser Ser Leu Arg Asp Leu Asn Val Arg Arg Asn
 180 185 190
 Gln Leu Ser Thr Leu Pro Glu Glu Leu Gly Asp Leu Pro Leu Val Arg
 195 200 205
 Leu Asp Phe Ser Cys Asn Arg Val Ser Arg Ile Pro Val Ser Phe Cys
 210 215 220
 Arg Leu Arg His Leu Gln Val Ile Leu Leu Asp Ser Asn Pro Leu Gln
 225 230 235 240
 Ser Pro Pro Ala Gln Val Cys Leu Lys Gly Lys Leu His Ile Phe Lys
 245 250 255
 Tyr Leu Ser Thr Glu Ala Gly Gln Arg Gly Ser Ala Leu Gly Asp Leu

260	265	270
Ala Pro Ser Arg Pro Pro Ser Phe Ser Pro Cys Pro Ala Glu Asp Leu		
275	280	285
Phe Pro Gly His Arg Tyr Asp Gly Gly Leu Asp Ser Gly Phe His Ser		
290	295	300
Val Asp Ser Gly Ser Lys Arg Trp Ser Gly Asn Glu Ser Thr Asp Glu		
305	310	315
Phe Ser Glu Leu Ser Phe Arg Ile Ser Glu Leu Ala Arg Glu Pro Arg		
325	330	335
Gly Pro Arg Glu Arg Lys Glu Asp Gly Ser Ala Asp Gly Asp Pro Val		
340	345	350
Gln Ile Asp Phe Ile Asp Ser His Val Pro Gly Glu Asp Glu Glu Arg		
355	360	365
Gly Thr Val Glu Glu Gln Arg Pro Pro Glu Leu Ser Pro Gly Ala Gly		
370	375	380
Asp Arg Glu Arg Ala Pro Ser Ser Arg Arg Glu Glu Pro Ala Gly Glu		
385	390	395
Glu Arg Arg Arg Pro Asp Thr Leu Gln Leu Trp Gln Glu Arg Glu Arg		
405	410	415
Arg Gln Gln Gln Gln Ser Gly Ala Trp Gly Ala Pro Arg Lys Asp Ser		
420	425	430
Leu Leu Lys Pro Gly Leu Arg Ala Val Val Gly Gly Ala Ala Val		
435	440	445
Ser Thr Gln Ala Met His Asn Gly Ser Pro Lys Ser Ser Ala Ser Gln		
450	455	460
Ala Gly Gly Cys Ser Gly Ala Gly Ser Pro Ala Pro Ala Pro Ala Ser		
465	470	475
Gln Glu Pro Leu Pro Ile Ala Gly Pro Ala Thr Ala Pro Ala Pro Arg		
485	490	495
Pro Leu Gly Ser Ile Gln Arg Pro Asn Ser Phe Leu Phe Arg Ser Ser		
500	505	510
Ser Gln Ser Gly Ser Gly Pro Ser Ser Pro Asp Ser Val Leu Arg Pro		
515	520	525
Arg Arg Tyr Pro Gln Val Pro Asp Glu Lys Asp Leu Met Thr Gln Leu		
530	535	540
Arg Gln Val Leu Glu Ser Arg Leu Gln Arg Pro Leu Pro Glu Asp Leu		
545	550	555
Ala Glu Ala Leu Ala Ser Gly Val Ile Leu Cys Gln Leu Ala Asn Gln		
565	570	575
Leu Arg Pro Arg Ser Val Pro Phe Ile His Val Pro Ser Pro Ala Val		
580	585	590
Pro Lys Leu Ser Ala Leu Lys Ala Arg Lys Asn Val Glu Ser Phe Leu		
595	600	605
Glu Ala Cys Arg Lys Met Gly Val Pro Glu Ala Asp Leu Cys Ser Pro		
610	615	620
Ser Asp Leu Leu Gln Gly Thr Ala Arg Gly Leu Arg Thr Ala Leu Glu		
625	630	635
Ala Val Lys Arg Val Gly Gly Lys Ala Leu Pro Pro Leu Trp Pro Pro		
645	650	655
Ser Gly Leu Gly Gly Phe Val Val Phe Tyr Val Val Leu Met Leu Leu		
660	665	670
Leu Tyr Val Thr Tyr Thr Arg Leu Leu Gly Ser		
675	680	

<210> 5565
 <211> 472
 <212> DNA
 <213> Homo sapiens

<400> 5565
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 120
 gaatgaaggg gctcactggg agtgggtccc aacttcgttg catattaaac cccccggaga
 180
 acttaaaactc cagtgcccgag tcctatgcaa tcagatcctg ggtctccact gtgcagcgcc
 240
 cgtggagagc cagcgatgtg gagggtcgag atcacccagt tctttgggga cagggctca
 300
 ctgcccccaa ggctggagtc cgggtgtgca atcacggctc acagcagtct cgacctccag
 360
 ggctcaagcg atcctccagc ctcagcctcc cgagcagctg ggagcacagg cgcataccac
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 472

<210> 5566
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 5566
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 20 25 30
 Leu Pro Pro Arg Leu Glu Ser Gly Gly Ala Ile Thr Ala His Ser Ser
 35 40 45
 Leu Asp Leu Gln Gly Ser Ser Asp Pro Pro Ala Ser Ala Ser Arg Ala
 50 55 60
 Ala Gly Ser Thr Gly Ala Tyr His Ala Trp Leu Phe
 65 70 75

<210> 5567
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 5567
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 120
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 180
 gaccggtttg ctagccccctg ggcttaagag atctgtccac ttactcctca acatgcagag
 240

tgtgaactgt gtgaactgca taggccacag caatcttact gcatccattc ccgctgcac
 300
 attatttttg atttgatttc attcagtcca ccgaagcatt cacttggcac ctctccaaat
 360
 ctgggtactg tgcaagatcc ttccttggga cactgaagga aaatcagaca cggcccttct
 420
 ctcaagtctg cagactctcc ggtatccaga tactacggct ctcatagtat cagaaaacac
 480
 agccacaagc gcaggtaagt atcagagggtg ttttacgaga tacatgtatc agattcttaa
 540
 ggctgctgta ccaaataacc aaaaactgca tggcttaaaa caacagaaat ttattccctc
 600
 acaatcctgg aggccagatg tctgaaatca agatattggt aggggttggt ccttctcgag
 660
 actctgaggg agaactctgt acatgcctgt tttcctagct tctagtactc tcctccaatt
 720
 cttagggttc ttgggtcat agatgcattg ctctaattc tgccctccac ttcccatggc
 780
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 840
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 960
 cctattac
 968

<210> 5568

<211> 130

<212> PRT

<213> Homo sapiens

<400> 5568

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			20					25					30		
His	Arg	Ser	Ile	His	Leu	Ala	Pro	Leu	Gln	Ile	Trp	Val	Leu	Cys	Lys
	35						40					45			
Ile	Leu	Pro	Trp	Asp	Thr	Glu	Gly	Lys	Ser	Asp	Thr	Ala	Leu	Leu	Ser
	50					55					60				
Ser	Ser	Gln	Thr	Leu	Arg	Tyr	Pro	Asp	Thr	Thr	Ala	Leu	Ile	Val	Ser
65					70					75				80	
Glu	Asn	Thr	Ala	Thr	Ser	Ala	Gly	Lys	Tyr	Gln	Arg	Cys	Phe	Thr	Arg
			85					90						95	
Tyr	Met	Tyr	Gln	Ile	Leu	Lys	Ala	Ala	Val	Pro	Lys	Tyr	His	Lys	Leu
			100					105					110		
His	Gly	Leu	Lys	Gln	Gln	Lys	Phe	Ile	Pro	Ser	Gln	Ser	Trp	Arg	Pro
	115						120						125		
Asp	Val														
	130														

<210> 5569

<211> 876

<212> DNA

<213> Homo sapiens

<400> 5569

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120
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180
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240
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360
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420
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480
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720
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780
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<210> 5570

<211> 169

<212> PRT

<213> Homo sapiens

<400> 5570

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20           25           30
Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35           40           45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50           55           60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65           70           75           80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85           90           95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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[illegible]

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<210> 5571
<211> 405
<212> DNA
<213> Homo sapiens
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180
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240
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<210> 5572
<211> 135
<212> PRT
<213> Homo sapiens
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1				5					10					15	
Ser	Tyr	His	Pro	Met	Val	Thr	Ala	Ser	Glu	Arg	Ile	Phe	Val	Leu	Asn
			20					25					30		
Gln	Leu	Arg	Asp	Pro	Thr	Ser	Pro	Lys	Phe	Pro	Glu	Asp	Phe	Asp	Asp
			35				40					45			
Gly	Glu	His	Ala	Lys	Gln	Lys	Ser	Val	Ile	Ser	Trp	Leu	Leu	Asn	His
			50			55					60				
Asp	Pro	Ala	Lys	Arg	Pro	Thr	Ala	Thr	Glu	Leu	Lys	Ser	Glu	Leu	
65					70				75					80	
Leu	Pro	Pro	Pro	Gln	Met	Glu	Glu	Ser	Glu	Leu	His	Glu	Val	Leu	His
				85					90					95	
His	Thr	Leu	Thr	Asn	Val	Asp	Gly	Lys	Ala	Tyr	Arg	Thr	Met	Met	Ala
			100					105					110		
Gln	Ile	Phe	Ser	Gln	Arg	Leu	Ala	Gly	Ala	Gly	Gly	Gly	Gly	Tyr	Arg
			115				120					125			
Ser	Arg	Leu	Gly	Val	Pro	Arg									

130

135

<210> 5573

<211> 1279

<212> DNA

<213> Homo sapiens

<400> 5573

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300
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360
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420
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540
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660
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720
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780
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1080
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1140
gcttatgtac taaggctgga gcctttgtta cagaagctgg tacagagagg agcaattgag
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<210> 5574

<211> 312
 <212> PRT
 <213> Homo sapiens

<400> 5574
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 Pro Arg Lys Ala Leu Leu Ile Ala Gly Ile Ser Gln Ser Cys Ser Val
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 Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu
 35 40 45
 Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val
 50 55 60
 Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys
 65 70 75 80
 Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro
 85 90 95
 Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly
 100 105 110
 Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn
 115 120 125
 Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro
 130 135 140
 Met Leu Ala Gln Ala Leu Glu Ala Leu Gln Pro Ala Leu Gln Cys Leu
 145 150 155 160
 Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro
 165 170 175
 Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile
 180 185 190
 Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu
 195 200 205
 Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn
 210 215 220
 Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val
 225 230 235 240
 Phe Gly Val Thr Asp Asn Pro Arg Glu Leu Gln Val Lys Tyr Leu Thr
 245 250 255
 Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu
 260 265 270
 Glu Pro Leu Leu Gln Lys Leu Val Gln Arg Gly Ala Ile Glu Arg Asp
 275 280 285
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<210> 5575
 <211> 2405
 <212> DNA
 <213> Homo sapiens

<400> 5575
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<210> 5576

<211> 367

<212> PRT

<213> Homo sapiens

<400> 5576

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Gln	Ala	Leu	Thr	Gly	Asn	Glu	Gly	Arg	Val	Ser	Val	Glu	Asn	Ile	Lys
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Gln	Leu	Leu	Gln	Cys	Leu	Val	Pro	Gly	Ser	Thr	Thr	Leu	His	Ser	Ala
	50					55					60				
Glu	Ile	Leu	Ala	Glu	Ile	Ala	Arg	Ile	Leu	Arg	Pro	Gly	Gly	Cys	Leu
65				70				75					80		
Phe	Leu	Lys	Glu	Pro	Val	Glu	Thr	Ala	Val	Asp	Asn	Asn	Ser	Lys	Val
			85					90					95		
Lys	Thr	Ala	Ser	Lys	Leu	Cys	Ser	Ala	Leu	Thr	Leu	Ser	Gly	Leu	Val
		100						105					110		
Glu	Val	Lys	Glu	Leu	Gln	Arg	Glu	Pro	Leu	Thr	Pro	Glu	Glu	Val	Gln
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Ser	Val	Arg	Glu	His	Leu	Gly	His	Glu	Ser	Asp	Asn	Leu	Leu	Phe	Val
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Gln	Ile	Thr	Gly	Lys	Lys	Pro	Asn	Phe	Glu	Val	Gly	Ser	Ser	Arg	Gln
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Leu	Lys	Leu	Ser	Ile	Thr	Lys	Lys	Ser	Ser	Pro	Ser	Val	Lys	Pro	Ala

					165					170					175		
Val	Asp	Pro	Ala	Ala	Ala	Lys	Leu	Trp	Thr	Leu	Ser	Ala	Asn	Asp	Met		
			180					185					190				
Glu	Asp	Asp	Ser	Met	Cys	Ile	Phe	Cys	Gly	Cys	Ser	Leu	Thr	His	Arg		
		195					200					205					
Trp	Pro	Leu	Glu	His	Val	Val	Arg	Leu	Asn	Met	Met	Ile	Asn	Gln	Lys		
	210					215					220						
Glu	Asp	Arg	Val	Asp	Thr	Phe	Phe	Thr	Leu	Asp	Ser	Lys	Phe	Pro	Leu		
225				230					235					240			
Glu	Ala	Cys	Ser	His	Phe	Ser	Phe	Ser	Leu	Ala	Glu	Thr	Thr	Thr	Val		
			245					250					255				
Ser	Leu	Ile	Ala	Leu	Asn	Thr	Leu	Gln	Asp	Leu	Ile	Asp	Ser	Asp	Glu		
		260					265					270					
Leu	Leu	Asp	Pro	Glu	Asp	Leu	Lys	Lys	Pro	Asp	Pro	Ala	Ser	Leu	Arg		
	275					280					285						
Ala	Ala	Ser	Cys	Gly	Glu	Gly	Lys	Lys	Arg	Lys	Ala	Cys	Lys	Asn	Cys		
290					295					300							
Thr	Cys	Gly	Leu	Ala	Glu	Glu	Leu	Glu	Lys	Glu	Lys	Ser	Arg	Glu	Gln		
305				310					315					320			
Met	Ser	Ser	Gln	Pro	Lys	Ser	Ala	Cys	Gly	Asn	Cys	Tyr	Leu	Gly	Asp		
			325					330					335				
Ala	Phe	Arg	Cys	Ala	Ser	Cys	Pro	Tyr	Leu	Gly	Met	Pro	Ala	Phe	Lys		
	340						345				350						
Pro	Gly	Glu	Lys	Val	Leu	Leu	Ser	Asp	Ser	Asn	Leu	His	Asp	Ala			
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<211> 659
<212> DNA
<213> Homo sapiens
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 360
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 420
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 480
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 gcagccatga agggcagtg gtagaggagt gcaggcaccc tgaccagcag agattgtctc
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<210> 5578
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 5578
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 Xaa Glu Ser Leu Pro Glu Gln Leu Pro Val Ala Asp Met Arg Ala Leu
 35 40 45
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys
 50 55 60
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg
 65 70 75 80
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu
 85 90 95
 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met
 100 105 110
 Gly Ser Glu Gln Thr Arg Leu Asp Leu Glu Gln Leu Leu Thr Met Glu
 115 120 125
 Thr Lys Leu Arg Leu Leu Glu Leu Glu Asn Val Pro Ile Pro Glu Arg
 130 135 140
 Pro Pro Pro Val Pro Pro Pro Pro Thr Asn Phe Asn Phe Cys Tyr Asp
 145 150 155 160
 Cys Ser Ile Ala Glu Pro
 165

<210> 5579
 <211> 1312
 <212> DNA
 <213> Homo sapiens

<400> 5579
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 120
 cacttactac ctacagctcc aactaccgtg aatgtaacac atcgtccagt aactcagggtg
 180
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 240
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 420
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 480
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<210> 5580

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5580

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Gln	Pro	Ile	Gln	Pro	Ala	Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr
			20					25				30			
Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr
		35					40					45			
Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu
	50					55					60				
Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu
65					70					75				80	
Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala
				85					90					95	
Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val
				100				105					110		
Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser
		115				120						125			
Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr
	130					135					140				
Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln
145					150					155				160	
Pro	Gln	Arg	Leu	Pro	Pro	Glu	Ala	Ala	Ser	Thr	Ser	Leu	Pro	Gln	Lys

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      165      170      175
Pro His Leu Lys Leu Ala Arg Val Gln Ser Gln Asn Gly Ile Val Leu
      180      185      190
Ser Trp Ser Val Leu Glu Val Asp Arg Ser Cys Ala Thr Val Asp Ser
      195      200      205
Tyr His Leu Tyr Ala Tyr His Glu Glu Pro Ser Ala Thr Val Pro Ser
      210      215      220
Gln Trp Lys Lys Ile Gly Glu Val Lys Ala Leu Pro Leu Pro Met Ala
      225      230      235      240
Cys Thr Leu Thr Gln Phe Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val
      245      250      255
Arg Ala Lys Asp Ile Tyr Gly Arg Phe Gly Pro Phe Cys Asp Pro Gln
      260      265      270
Ser Thr Asp Val Ile Ser Ser Thr Gln Ser Ser
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<210> 5581
 <211> 720
 <212> DNA
 <213> Homo sapiens

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<400> 5581
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<210> 5582
 <211> 212
 <212> PRT
 <213> Homo sapiens

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<400> 5582
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      20           25           30
Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln Val Thr Glu
      35           40           45
Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala
      50           55           60
Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val
      65           70           75           80
Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala
      85           90           95
Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro
      100          105          110
Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro
      115          120          125
Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met
      130          135          140
Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Val Ser
      145          150          155          160
Cys Leu Ala Gly Phe Leu Tyr Phe Glu Ile Leu Asn His Ser Leu Leu
      165          170          175
Ser Asp Asp Ser Ser Leu Ser Trp Tyr His Gln Val Val Leu Gln Met
      180          185          190
Thr Pro Ser Gly Gly Lys Ala Cys Val Trp Gly His Leu Pro Ser Ser
      195          200          205
Ser His Thr Ile
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<210> 5583

<211> 2101

<212> DNA

<213> Homo sapiens

<400> 5583

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600

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a
2101

<210> 5584

<211> 454
 <212> PRT
 <213> Homo sapiens

<400> 5584

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 20           25           30
Glu Arg Val Ala Ala Leu Gln Thr Val Gly Pro Thr Ala Gly Pro Ala
 35           40           45
Pro Asn Ala Phe Thr Ser Thr Leu Glu Lys Val Gly Asp His Gln Phe
 50           55           60
Leu Leu Tyr Ser Gly Arg Ser Pro Pro Thr Pro Thr Gly Leu Val His
 65           70           75           80
Leu Val Val Val Ala Ala Lys Lys Leu Val Asn Arg Leu Gln Val Ala
 85           90           95
Pro Lys Thr Gln Leu Asp Glu Thr Val Leu Trp Val Val His Val Ser
 100          105          110
Gly Pro Ile Asn Pro Gln Val Leu Lys Ser Lys Ala Ala Lys Glu Leu
 115          120          125
Lys Ala Leu Gln Asp Leu Ala Arg Lys Glu Met Leu Glu Leu Leu Asp
 130          135          140
Met Pro Ala Ala Glu Leu Leu Gln Asp His Gln Leu Leu Trp Ala Gln
 145          150          155          160
Leu Phe Ser Pro Gly Val Glu Met Lys Lys Ile Thr Asp Thr His Thr
 165          170          175
Pro Ser Gly Leu Thr Val Asn Leu Thr Leu Tyr Tyr Met Leu Ser Cys
 180          185          190
Ser Pro Ala Pro Leu Leu Ser Pro Ser Leu Ser His Arg Glu Arg Asp
 195          200          205
Gln Met Glu Ser Thr Leu Asn Tyr Glu Asp His Cys Phe Ser Gly His
 210          215          220
Ala Thr Met His Ala Glu Asn Leu Trp Pro Gly Arg Leu Ser Ser Val
 225          230          235          240
Gln Gln Ile Leu Gln Leu Ser Asp Leu Trp Arg Leu Thr Leu Gln Lys
 245          250          255
Arg Gly Cys Lys Gly Leu Val Lys Val Gly Ala Pro Gly Ile Leu Gln
 260          265          270
Gly Met Val Leu Ser Phe Gly Gly Leu Gln Phe Thr Glu Asn His Leu
 275          280          285
Gln Phe Gln Ala Asp Pro Asp Val Leu His Asn Ser Tyr Ala Leu His
 290          295          300
Gly Ile Arg Tyr Lys Asn Asp His Ile Asn Leu Ala Val Leu Arg Met
 305          310          315          320
Pro Arg Ala Ser Pro Thr Tyr Thr Cys Pro Trp Ser Pro Val Ala Ser
 325          330          335
Leu Ser Xaa Ile Tyr Ala Cys Lys Ala Gly Cys Leu Asp Glu Pro Val
 340          345          350
Glu Leu Thr Ser Ala Pro Thr Gly His Thr Phe Ser Val Met Val Thr
 355          360          365
Gln Pro Ile Thr Pro Leu Leu Tyr Ile Ser Thr Asp Leu Thr His Leu
 370          375          380
Gln Asp Leu Arg His Thr Leu His Leu Lys Ala Ile Leu Ala His Asp

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385          390          395          400
Glu His Met Ala Gln Gln Asp Pro Gly Leu Pro Phe Leu Phe Trp Phe
          405          410          415
Ser Val Ala Ser Leu Ile Thr Leu Phe His Leu Phe Leu Phe Lys Leu
          420          425          430
Ile Tyr Asn Glu Tyr Cys Gly Pro Gly Ala Lys Pro Leu Phe Arg Ser
          435          440          445
Lys Glu Asp Pro Ser Val
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<210> 5585
<211> 740
<212> DNA
<213> Homo sapiens

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<400> 5585
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120
ctcacaagaa taaaatatac aatgctacat tgagtgggta aaaatacaca aaaaagtagt
180
tttaacaatc tataaatttt ttatacttaa aatcatgatt gagttgaaat aaaaaagtgc
240
atttcaattg ctaaaaaaat aatatcggtg tagttaacac aagggggaaa tcagtacatt
300
gaggggatctg acaggatgct ggaaaaaatg actcagggaa gccgggcagc atgggctcct
360
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420
cctcctctcc ccagtatctt tcccacttta agagatcctg tcctacctac ctgtcacctc
480
cccaacccaa agactcctct aaacttcttt gcagcatgac agctgcctgc cctacactga
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gtctacttga ccttcaattg cgtctccgca gagaggtagg agagggacac tgccccattc
600
tggacttgac ataagtaccc cagccacatg gccttcatcc ttatgaccta gcaggcagaa
660
cagggaccaa gcagcttcta tttgtcaaa ctcctttgga caaatattca acattcaaca
720
acaagctttg taaacctaac
740

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<210> 5586
<211> 87
<212> PRT
<213> Homo sapiens

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<400> 5586
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Gln Phe Pro Gly Ala Lys Gln Pro Ser Ser Pro Gln Tyr Leu Ser His
20     25     30
Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp

```

```

      35          40          45
Ser Ser Lys Leu Leu Cys Ser Met Thr Ala Ala Cys Pro Thr Leu Ser
  50          55          60
Leu Leu Asp Leu Gln Leu Arg Leu Arg Arg Glu Val Gly Glu Gly His
  65          70          75          80
Cys Pro Ile Leu Asp Leu Thr
      85

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<210> 5587
 <211> 853
 <212> DNA
 <213> Homo sapiens

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<400> 5587
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  120
ttcattgttt tctcaatttg cttcagaaaa acttgcggga ttcgtccaca taaagtgtgc
  180
acagtctcca aaaacttcag ctgaaggggg taatacatgg attgaaagag attgtcttga
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  300
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  360
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  420
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  480
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  540
ctgttcttga actgggtact tcttatccga gttaaattca ttaacatgac tcttgaatta
  600
actctgcag agccatagaa aggatgccta gcaaagcggc tgtaccagcc aatcttgggg
  660
atttcgtgct caggggccat ggctgcaagc tgggtggaat taaacagcct cagaagcttc
  720
cagatgtcat caacaggtct cagaaagagg acatcggtgt ccacgtagag aagtgagtcc
  780
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  840
ttccactcct gag
  853

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<210> 5588
 <211> 204
 <212> PRT
 <213> Homo sapiens

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<400> 5588
Met Ala Pro Glu His Glu Ile Pro Lys Ile Gly Trp Tyr Ser Arg Phe
  1          5          10          15
Ala Arg His Pro Phe Tyr Gly Ser Ala Gly Val Asn Ser Gly Val Met

```

```

      20      25      30
Leu Met Asn Leu Thr Arg Ile Arg Ser Thr Gln Phe Lys Asn Ser Met
      35      40      45
Ile Pro Thr Gly Leu Ala Trp Glu Asp Met Leu Tyr Pro Leu Tyr Gln
      50      55      60
Lys Tyr Lys Asn Ala Ile Thr Trp Gly Asp Gln Asp Leu Leu Asn Ile
      65      70      75      80
Ile Phe Tyr Phe Asn Pro Glu Cys Leu Tyr Val Phe Pro Cys Gln Trp
      85      90      95
Asn Tyr Arg Pro Asp His Cys Met Tyr Gly Ser Asn Cys Arg Glu Ala
      100      105      110
Glu His Glu Gly Val Ser Val Leu His Gly Asn Arg Gly Val Tyr His
      115      120      125
Asp Asp Lys Gln Pro Thr Phe Arg Ala Leu Tyr Glu Ala Ile Arg Asp
      130      135      140
Phe Pro Phe Gln Asp Asn Leu Phe Gln Ser Met Tyr Tyr Pro Leu Gln
      145      150      155      160
Leu Lys Phe Leu Glu Thr Val His Thr Leu Cys Gly Arg Ile Pro Gln
      165      170      175
Val Phe Leu Lys Gln Ile Glu Lys Thr Met Lys Arg Ala Tyr Glu Lys
      180      185      190
His Val Ile Ile His Val Gly Pro Asn Gln Met His
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<210> 5589

<211> 1327

<212> DNA

<213> Homo sapiens

<400> 5589

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120
gataacttca ccaagatgtc cagtgatagg caaagggtccg atgatgagag ccccgacc
180
agcagtgcca gttcagatgc ggaccagcga gaccagccg ctccagagcc tgaagaacaa
240
gaggaaagaa aaccttctgc caccagcag aagaaaaa ccaaactctc tagcaaaacc
300
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360
gatcctctc ctaattgcag tgctgggcct aaaggagata acatttatga atggagatca
420
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480
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540
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600
gctttgacta tttcaaagg tttgctgtct atttgttccc ttttgacaga ctgcaaccct
660
gcggatcctc tggttggaag catagccact cagtatttga ccaacagagc agaacacgac
720

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aggatagcca gacagtggac caagagatac gcaacataat tcacataatt tgtatgcagt
 780
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 840
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 1327

<210> 5590

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5590

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			20					25					30		
Glu	Glu	Gln	Glu	Glu	Arg	Lys	Pro	Ser	Ala	Thr	Gln	Gln	Lys	Lys	Asn
		35					40					45			
Thr	Lys	Leu	Ser	Ser	Lys	Thr	Ala	Lys	Leu	Ser	Thr	Ser	Ala	Lys	
	50					55				60					
Arg	Ile	Gln	Lys	Glu	Leu	Ala	Glu	Ile	Thr	Leu	Asp	Pro	Pro	Pro	Asn
65					70				75					80	
Cys	Ser	Ala	Gly	Pro	Lys	Gly	Asp	Asn	Ile	Tyr	Glu	Trp	Arg	Ser	Thr
			85					90					95		
Ile	Leu	Gly	Pro	Pro	Gly	Ser	Val	Tyr	Glu	Gly	Gly	Val	Phe	Phe	Leu
		100					105					110			
Asp	Ile	Thr	Phe	Ser	Ser	Asp	Tyr	Pro	Phe	Lys	Pro	Pro	Lys	Val	Thr
	115					120					125				
Phe	Arg	Thr	Arg	Ile	Tyr	His	Cys	Asn	Ile	Asn	Ser	Gln	Gly	Val	Ile
	130					135				140					
Cys	Leu	Asp	Ile	Leu	Lys	Asp	Asn	Trp	Ser	Pro	Ala	Leu	Thr	Ile	Ser
145				150					155					160	
Lys	Val	Leu	Leu	Ser	Ile	Cys	Ser	Leu	Leu	Thr	Asp	Cys	Asn	Pro	Ala
		165						170					175		
Asp	Pro	Leu	Val	Gly	Ser	Ile	Ala	Thr	Gln	Tyr	Leu	Thr	Asn	Arg	Ala
	180						185					190			
Glu	His	Asp	Arg	Ile	Ala	Arg	Gln	Trp	Thr	Lys	Arg	Tyr	Ala	Thr	

195

200

205

<210> 5591

<211> 2194

<212> DNA

<213> Homo sapiens

<400> 5591

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120
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240
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4771

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<210> 5592

<211> 580

<212> PRT

<213> Homo sapiens

<400> 5592

Met	Pro	Ser	Gly	Ser	Ala	Arg	Pro	Val	Ala	Pro	Gly	Ala	Arg	Arg	Leu
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Val	Pro	Cys	Arg	Thr	Pro	Thr	Arg	Gln	Leu	Arg	Glu	Glu	Leu	Val	Ile
			20					25					30		
Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	Gln	Phe	Arg	Thr
			35				40					45			
Arg	Trp	Asp	Ser	Asp	Leu	Gln	Arg	Glu	Gly	Val	Ser	His	Tyr	Arg	Leu
	50					55					60				
Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	Lys	Tyr	Ser	Leu	Arg	Glu
65				70					75					80	
Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	Trp	Arg	Thr	Arg	Tyr	Trp	Gly
			85					90					95	Pro	Phe
Gln	Ala	Pro	Ser	Gly	Ala	Glu	Leu	Trp	Val	Trp	Phe				
			100					105					110		
Gln	Asp	Thr	Val	Thr	Asp	Val	Asp	Lys	Ser	Trp	Arg	Glu	Leu	Ser	Asn
	115						120					125			
Val	Leu	Ser	Gly	Ile	Phe	Cys	Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr
	130					135					140				
Asn	Thr	Val	Thr	Pro	Thr	Ala	Ser	Phe	Lys	Pro	Leu	Gly	Leu	Ala	Asn

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145          150          155          160
Asp Thr Asp His Tyr Phe Leu Arg Tyr Ala Val Leu Pro Arg Glu Val
165          170          175
Val Cys Thr Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser
180          185          190
Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His
195          200          205
Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn
210          215          220
Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val
225          230          235          240
Val Phe Asp Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu
245          250          255
Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser
260          265          270
Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Pro Cys Leu
275          280          285
Cys Val Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Pro Thr Thr
290          295          300
Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr
305          310          315          320
Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu Asn Ile
325          330          335
Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro
340          345          350
Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly
355          360          365
Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro Tyr Arg Ala Phe Pro
370          375          380
Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His
385          390          395          400
Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu Asn Lys Pro Ser Tyr Ile
405          410          415
His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Leu Glu Met
420          425          430
Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys Val Ser Ile Gln Phe
435          440          445
Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr Pro Asp Pro Asn His
450          455          460
Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met
465          470          475          480
Val Ala Ala Lys Pro Val Asp Trp Glu Glu Ser Pro Leu Phe Asn Ser
485          490          495
Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr
500          505          510
Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr
515          520          525
Asn Val Ile Cys Leu Thr Cys Thr Val Val Ala Val Cys Tyr Gly Ser
530          535          540
Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr
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Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu Ile Arg Arg Ala Arg Gly
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Val Pro Pro Leu

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580

<210> 5593

<211> 3078

<212> DNA

<213> Homo sapiens

<400> 5593

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1320
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1380

4774

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<211> 296

<212> PRT

<213> Homo sapiens

<400> 5594

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<212> DNA

<213> Homo sapiens

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 Met Arg Val Glu Lys Phe Ile Tyr Glu Asn His Pro Asp Val Phe Ser
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 Asp Ser Ser Met Asp His Phe Gln Lys Phe Leu Pro Thr Val Gly Gly
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 Gln Leu Gly Thr Ala Gly Gln Gly Phe Ser Tyr Ser Lys Ser Asn Gly
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 Arg Gly Gly Ser Gln Ala Gly Gly Ser Gly Ser Ala Gly Gln Tyr Gly
 115 120 125
 Ser Asp Gln Gln His His Leu Gly Ser Gly Ser Gly Ala Gly Gly Thr
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 Gly Gly Pro Ala Gly Gln Ala Gly Arg Gly Gly Ala Ala Gly Thr Ala
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 Gly Val Gly Glu Thr Gly Ser Gly Asp Gln Ala Gly Gly Glu Gly Lys
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 His Ile Thr Val Phe Lys Thr Tyr Ile Ser Pro Trp Glu Arg Ala Met
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 Gly Val Asp Pro Gln Gln Lys Met Glu Leu Gly Ile Asp Leu Leu Ala
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 Tyr Gly Ala Lys Ala Glu Leu Pro Lys Tyr Lys Ser Phe Asn Arg Thr
 210 215 220
 Ala Met Pro Tyr Gly Gly Tyr Glu Lys Ala Ser Lys Arg Met Thr Phe
 225 230 235 240
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Glu	Pro	Val	Glu	Thr	Ala	Val	Asp	Asn	Asn	Ser	Lys	Val	Lys	Thr	Ala
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<211> 923

<212> PRT

<213> Homo sapiens

<400> 5600

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 Thr Leu Val Ala Leu Asp Glu Ala Leu Asp Asn Tyr Thr Ile Thr Phe
 65 70 75 80
 Leu Ile Arg Gly Val Ala Ile Gly Gln Thr Ser Leu Thr Ala Ser Val
 85 90 95
 Thr Asn Lys Ala Gly Gln Arg Ile Asn Ser Ala Pro Gln Gln Ile Glu
 100 105 110
 Val Phe Pro Pro Phe Arg Leu Met Pro Arg Lys Val Thr Leu Leu Ile
 115 120 125
 Gly Ala Thr Met Gln Val Thr Ser Glu Gly Gly Pro Gln Pro Gln Ser
 130 135 140
 Asn Ile Leu Phe Ser Ile Ser Asn Glu Ser Val Ala Leu Val Ser Ala
 145 150 155 160
 Ala Gly Leu Val Gln Gly Leu Ala Ile Gly Asn Gly Thr Val Ser Gly
 165 170 175
 Leu Val Gln Ala Val Asp Ala Glu Thr Gly Lys Val Val Ile Ile Ser
 180 185 190
 Gln Asp Leu Val Gln Val Glu Val Leu Leu Leu Arg Ala Val Arg Ile
 195 200 205
 Arg Ala Pro Ile Met Arg Met Arg Thr Gly Thr Gln Met Pro Ile Tyr
 210 215 220
 Val Thr Gly Ile Thr Asn His Gln Asn Pro Phe Ser Phe Gly Asn Ala
 225 230 235 240
 Val Pro Gly Leu Thr Phe His Trp Ser Val Thr Lys Arg Asp Val Leu
 245 250 255
 Asp Leu Arg Gly Arg His His Glu Ala Ser Ile Arg Leu Pro Ser Gln
 260 265 270
 Tyr Asn Phe Ala Met Asn Val Leu Gly Arg Val Lys Gly Arg Thr Gly
 275 280 285
 Leu Arg Val Val Val Lys Ala Val Asp Pro Thr Ser Gly Gln Leu Tyr
 290 295 300
 Gly Leu Ala Arg Glu Leu Ser Asp Glu Ile Gln Val Gln Val Phe Glu

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305          310          315          320
Lys Leu Gln Leu Leu Asn Pro Glu Ile Glu Ala Glu Gln Ile Leu Met
          325          330          335
Ser Pro Asn Ser Tyr Ile Lys Leu Gln Thr Asn Arg Asp Gly Ala Ala
          340          345          350
Ser Leu Ser Tyr Arg Val Leu Asp Gly Pro Glu Lys Val Pro Val Val
          355          360          365
His Val Asp Glu Lys Gly Phe Leu Ala Ser Gly Ser Met Ile Gly Thr
          370          375          380
Ser Thr Ile Glu Val Ile Ala Gln Glu Pro Phe Gly Ala Asn Gln Thr
385          390          395          400
Ile Ile Val Ala Val Lys Val Ser Pro Val Ser Tyr Leu Arg Val Ser
          405          410          415
Met Ser Pro Val Leu His Thr Gln Asn Lys Glu Ala Leu Val Ala Val
          420          425          430
Pro Leu Gly Met Thr Val Thr Phe Thr Val His Phe His Asp Asn Ser
          435          440          445
Gly Asp Val Phe His Ala His Ser Ser Val Leu Asn Phe Ala Thr Asn
          450          455          460
Arg Asp Asp Phe Val Gln Ile Gly Lys Gly Pro Thr Asn Asn Thr Cys
465          470          475          480
Val Val Arg Thr Val Ser Val Gly Leu Thr Leu Leu Arg Val Trp Asp
          485          490          495
Ala Glu His Pro Gly Leu Ser Asp Phe Met Pro Leu Pro Val Leu Gln
          500          505          510
Ala Ile Ser Pro Glu Leu Ser Gly Ala Met Val Val Gly Asp Val Leu
          515          520          525
Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu Ser Gly Thr Trp
          530          535          540
Ser Ser Ser Ala Asn Ser Ile Leu His Ile Asp Pro Lys Thr Gly Val
545          550          555          560
Ala Val Ala Arg Ala Val Gly Ser Val Thr Val Tyr Tyr Glu Val Ala
          565          570          575
Gly His Leu Arg Thr Tyr Lys Glu Val Val Val Ser Val Pro Gln Arg
          580          585          590
Ile Met Ala Arg His Leu His Pro Ile Gln Thr Ser Phe Gln Glu Ala
          595          600          605
Thr Ala Ser Lys Val Ile Val Ala Val Gly Asp Arg Ser Ser Asn Leu
          610          615          620
Arg Gly Glu Cys Thr Pro Thr Gln Arg Glu Val Ile Gln Ala Leu His
625          630          635          640
Pro Glu Thr Leu Ile Ser Cys Gln Ser Gln Phe Lys Pro Ala Val Phe
          645          650          655
Asp Phe Pro Ser Gln Asp Val Phe Thr Val Glu Pro Gln Phe Asp Thr
          660          665          670
Ala Leu Gly Gln Tyr Phe Cys Ser Ile Thr Met His Arg Leu Thr Asp
          675          680          685
Lys Gln Arg Lys His Leu Ser Met Lys Lys Thr Ala Leu Val Val Ser
          690          695          700
Ala Ser Leu Ser Ser Ser His Phe Ser Thr Glu Gln Val Gly Ala Glu
705          710          715          720
Val Pro Phe Ser Pro Gly Leu Phe Ala Asp Gln Ala Glu Ile Leu Leu
          725          730          735
Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe Gly Ala Pro Glu

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740					745					750								
Val	Leu	Glu	Asn	Leu	Glu	Val	Lys	Ser	Gly	Ser	Pro	Ala	Val	Leu	Ala			
755					760					765								
Phe	Ala	Lys	Glu	Lys	Ser	Phe	Gly	Trp	Pro	Ser	Phe	Ile	Thr	Tyr	Thr			
770					775					780								
Val	Gly	Val	Ser	Asp	Pro	Ala	Ala	Gly	Ser	Gln	Gly	Pro	Leu	Ser	Thr			
785					790					795					800			
Thr	Leu	Thr	Phe	Ser	Ser	Pro	Val	Thr	Asn	Gln	Ala	Ile	Ala	Ile	Pro			
					805					810					815			
Val	Thr	Val	Ala	Phe	Val	Met	Asp	Arg	Arg	Gly	Pro	Gly	Pro	Tyr	Gly			
					820					825					830			
Ala	Ser	Leu	Phe	Gln	His	Phe	Leu	Asp	Ser	Tyr	Gln	Val	Met	Phe	Phe			
					835					840					845			
Thr	Leu	Phe	Ala	Leu	Leu	Ala	Gly	Thr	Ala	Val	Met	Ile	Ile	Ala	Tyr			
					850					855					860			
His	Thr	Val	Cys	Thr	Pro	Arg	Asp	Leu	Ala	Val	Pro	Ala	Ala	Leu	Thr			
					865					870					875		880	
Pro	Arg	Ala	Ser	Pro	Gly	His	Ser	Pro	His	Tyr	Phe	Ala	Ala	Ser	Ser			
					885					890					895			
Pro	Thr	Ser	Pro	Asn	Ala	Leu	Pro	Pro	Ala	Arg	Lys	Ala	Ser	Pro	Pro			
					900					905					910			
Ser	Gly	Leu	Trp	Ser	Pro	Ala	Tyr	Ala	Ser	His								
					915					920								

<210> 5601

<211> 670

<212> DNA

<213> Homo sapiens

<400> 5601

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120
gaacagagaa ggacgacagc ttctttgttg cgcaactga ctacagcctc caatggaggg
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gtcattgagg agttatcttg tgtagatcc aataactatg tgcaggaacc agagtgcagg
240
aggaatcttg ttcagtgcct ccttgagaag caggggactc ctgtggtaca agggtccttg
300
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360
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420
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480
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540
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670

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<210> 5602
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 5602
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 Leu Thr Trp Ala Cys Met Ala Arg Gln Thr Arg His Leu Gly Glu Gln
 20 25 30
 Arg Arg Thr Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn
 35 40 45
 Gly Gly Val Ile Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val
 50 55 60
 Gln Glu Pro Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys
 65 70 75 80
 Gln Gly Thr Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met
 85 90 95
 Ser Ser Leu Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu
 100 105 110
 Leu Ser Val Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile
 115 120 125
 Ser Glu Phe Ile Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val
 130 135 140
 Leu Lys Lys Ser Pro Gln Leu Leu Lys Leu Pro Ile Met Gln Met Arg
 145 150 155 160
 Lys Arg Ser Ser Tyr Leu Gln Lys Leu Gly Leu Gly Glu Gly Lys Leu
 165 170 175
 Lys Arg Val Leu Tyr Cys Cys Pro Glu Ile Phe Thr Met Arg Gln Gln
 180 185 190
 Asp Ile Asn Asp Thr Val Arg Leu Leu Lys Glu Lys Cys Leu Phe Thr
 195 200 205
 Val Pro Leu His Ala
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<210> 5603
 <211> 2070
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360

ttggaggaca cgggggccct gttgtcttca ggccagaaag attatgttac ggtgcagttg
420
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480
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540
tatgaccaga acacatggaa aagcactgcg gtgacccagt ggaacctggt ctgtgaccga
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720
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1320
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1920
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1980

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 2040
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 2070

<210> 5604

<211> 560

<212> PRT

<213> Homo sapiens

<400> 5604

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Cys	Gly	Ile	His	Tyr	Leu	Ala	Ser	Val	Phe	Met	Gly	Val	Thr	Pro	His
			20					25						30	
His	Val	Cys	Arg	Pro	Pro	Gly	Asn	Val	Ser	Gln	Val	Val	Phe	His	Asn
		35					40					45			
His	Ser	Asn	Trp	Ser	Leu	Glu	Asp	Thr	Gly	Ala	Leu	Leu	Ser	Ser	Gly
	50					55					60				
Gln	Lys	Asp	Tyr	Val	Thr	Val	Gln	Leu	Gln	Asn	Gly	Glu	Ile	Trp	Glu
65					70				75					80	
Leu	Ser	Arg	Cys	Ser	Arg	Asn	Lys	Arg	Glu	Asn	Thr	Ser	Ser	Leu	Gly
			85						90					95	
Tyr	Glu	Tyr	Thr	Gly	Ser	Lys	Lys	Glu	Phe	Pro	Cys	Val	Asp	Gly	Tyr
			100					105					110		
Ile	Tyr	Asp	Gln	Asn	Thr	Trp	Lys	Ser	Thr	Ala	Val	Thr	Gln	Trp	Asn
			115				120						125		
Leu	Val	Cys	Asp	Arg	Lys	Trp	Leu	Ala	Met	Leu	Ile	Gln	Pro	Leu	Phe
			130			135						140			
Met	Phe	Gly	Val	Leu	Leu	Gly	Ser	Val	Thr	Phe	Gly	Tyr	Phe	Ser	Asp
145					150					155					160
Arg	Leu	Gly	Arg	Arg	Val	Val	Leu	Trp	Ala	Thr	Ser	Ser	Ser	Met	Phe
			165						170					175	
Leu	Phe	Gly	Ile	Ala	Ala	Ala	Phe	Ala	Val	Asp	Tyr	Tyr	Thr	Phe	Met
			180					185						190	
Ala	Ala	Arg	Phe	Phe	Leu	Ala	Met	Val	Ala	Ser	Gly	Tyr	Leu	Val	Val
			195				200					205			
Gly	Phe	Val	Tyr	Val	Met	Glu	Phe	Ile	Gly	Met	Lys	Ser	Arg	Thr	Trp
			210			215						220			
Ala	Ser	Val	His	Leu	His	Ser	Phe	Phe	Ala	Val	Gly	Thr	Leu	Leu	Val
225					230					235					240
Ala	Leu	Thr	Gly	Tyr	Leu	Val	Arg	Thr	Trp	Trp	Leu	Tyr	Gln	Met	Ile
			245						250					255	
Leu	Ser	Thr	Val	Thr	Val	Pro	Phe	Ile	Leu	Cys	Cys	Trp	Val	Leu	Pro
			260					265					270		
Glu	Thr	Pro	Phe	Trp	Leu	Leu	Ser	Glu	Gly	Arg	Tyr	Glu	Glu	Ala	Gln
			275				280					285			
Lys	Ile	Val	Asp	Ile	Met	Ala	Lys	Trp	Asn	Arg	Ala	Ser	Ser	Cys	Lys
			290			295					300				
Leu	Ser	Glu	Leu	Leu	Ser	Leu	Asp	Leu	Gln	Gly	Pro	Val	Ser	Asn	Ser
305					310					315					320
Pro	Thr	Glu	Val	Gln	Lys	His	Asn	Leu	Ser	Tyr	Leu	Phe	Tyr	Asn	Trp
			325					330						335	
Ser	Ile	Thr	Lys	Arg	Thr	Leu	Thr	Val	Trp	Leu	Ile	Trp	Phe	Thr	Gly

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          340          345          350
Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly Gly
          355          360          365
Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro Ala
          370          375          380
Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val
385          390          395          400
Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met
          405          410          415
Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met Val
          420          425          430
Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr
          435          440          445
Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser Gly
          450          455          460
Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val Asp
465          470          475          480
Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr Met
          485          490          495
Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu Gly
          500          505          510
Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser Glu
          515          520          525
Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser Gly
          530          535          540
Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly Glu
545          550          555          560

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<210> 5605
 <211> 376
 <212> DNA
 <213> Homo sapiens

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 120
 catccaggga ggcctctcca gggaggatga cggaacatca gaggaagaa gcaaggagaa
 180
 ccagccacac tcagagctgg gaaagagcag caggaagatg ggggcagtga gtgccagggc
 240
 tctgcaggga tgggcttgc tggcaggag caataccaag gaagttagta gggcccgggt
 300
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 360
 cctttgaact acgccc
 376

<210> 5606
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 5606

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Met Thr Arg Ala Leu Leu Thr Ser Leu Val Leu Leu Pro Ala Arg Gln
 1           5           10          15
Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
      20           25           30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Leu Ser Ser
      35           40           45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
      50           55           60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
      65           70           75           80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
      85           90           95
Phe Pro Phe Thr Arg
      100

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<210> 5607

<211> 320

<212> DNA

<213> Homo sapiens

<400> 5607

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ggtttggggc gacacgcgga aggccgggtg gagcccatcc atgctgtggt gttgcctcga
120
gggaagtcgc tggaccagtg tgtggagacc ctgcagaagc agaccagggt tggcaaggct
180
ggcaccaaca agccccccag gtgccgggga agaggggcca ggcctggggg ccgcccagct
240
cctcggaatg tgtttgactt cctcaatgaa aagctgcaag gtcaggctcc tggggcccta
300
caagccgggc ggctcagca
320

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<210> 5608

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5608

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Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
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Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
      20           25           30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
      35           40           45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
      50           55           60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
      65           70           75           80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
      85           90           95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

105

<210> 5609
<211> 1843
<212> DNA
<213> Homo sapiens

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120
tttaacattt cagtccattc acttttttta aaataaaaaat aggacaaatt attcaattac
180
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240
taaaaaataga cccgtattga tcatacaaat ctatcatgag aagttaccca gtgagagtga
300
gttattgtaa ttctgaatgt actcatcgtg tttctcactt ctacagaagc atcctcagtg
360
agttgtattg tgcgagaaaa tgacaccctt gcccacatca ctctccattc catagaggga
420
cacaacccta tctagccaaa ccagaaagaa cgcaggcgct tacacaactt ttctcggaca
480
gtcagagaaa tccaaaagtg ggctttgggc ttaccttaaa taggaatgga atgtaccact
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660
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720
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780
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1140
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1320
ccaatgcccc ggagagggtc agagcacatg tgctctggtg gttgtcaaat ctctcaccat
1380

4792

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 1740
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<210> 5610

<211> 153

<212> PRT

<213> Homo sapiens

<400> 5610

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Phe	Thr	Ala	Cys	Ser	Ser	Arg	Val	Gln	Met	Ala	Cys	Ile	Cys	Ala	Val
		20						25					30		
Phe	Thr	Gly	Gly	Arg	Gln	Asp	His	Thr	Ser	Leu	Pro	His	Trp	Ala	Cys
		35				40						45			
Leu	Leu	Val	Asp	Ser	Cys	Met	Gln	Glu	Ala	Val	Met	Gly	Ser	Leu	Arg
	50				55					60					
Ile	Pro	Gln	Cys	Gly	Asn	Gly	Pro	Leu	Arg	Leu	Val	Leu	Arg	Val	Pro
65					70					75				80	
Gly	Ala	Gln	Ser	Trp	Val	Gly	Gly	Cys	Trp	Trp	Glu	Val	Arg	Asn	Lys
			85						90					95	
Phe	Trp	Leu	Pro	Ser	Gly	Gln	Leu	Pro	Thr	Ala	Leu	Thr	Trp	Glu	Val
		100						105					110		
Asp	Ala	His	Arg	Gln	Asp	Ala	Leu	Gly	Tyr	Cys	Cys	Thr	Val	Leu	His
		115					120					125			
Glu	Ile	Phe	Ile	Gln	Pro	Thr	Arg	Phe	Asn	Arg	Ser	Leu	Gly	Ser	Ser
	130					135					140				
Ser	Arg	Leu	Leu	Cys	Leu	Phe	Lys	His							
145					150										

<210> 5611

<211> 1152

<212> DNA

<213> Homo sapiens

<400> 5611

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 tgcaaggaag ccctccggcg ctgcgctccg aggcgggaga cagcgtcccc ctccgccctt
 120

cgggtcctcg cgcctcagag cccggccag gccgcggaac ggtgatgctc gggccggacg
 180
 ggcgagcgcg gatccctgcg tcccgtgaa aatgtgtgct tgacatgcaa gctcagtggg
 240
 gcagagaccc gtggattgct gtgccctgcc ctccggacct ggatcatgaa ggtgttgga
 300
 agaagcttct tctgggtgct gtttcccgct cttccctggg cggtgcaggc tgtggagcac
 360
 gaggaggtgg cgcagcgtgt gatcaactg caccgcgggc gaggggtggc tgccatgcag
 420
 agccggcagt ggggtccggga cagctgcagg aagctctcag ggcttctccg ccagaagaat
 480
 gcagttctga acaaaactgaa aactgcaatt ggagcagtgg agaaagacgt gggcctgtcg
 540
 gatgaagaga aactgtttca ggtgcacacg tttgaaattt tccagaaaga gctgaatgaa
 600
 agtgaataat ccgttttcca agctgtctac ggactgcaga gagccctgca gggggattac
 660
 aaagatgtcg tgaacatgaa ggagagcagc cggcagcgcc tggaggccct gagagaggct
 720
 gcaataaagg aagaaacaga atatattgaa cttctggcag cagaaaaaca tcaagttgaa
 780
 gcccttaaaa atatgcaaca tcaaaaccaa agtttatcca tgcttgacga gattcttgaa
 840
 gatgtaagaa aggcagcgga tcgtctggag gaagagatag aggaacatgc ttttgacgac
 900
 aataaatcag tcaagggggg caattttgag gcagttctga ggggtggagga agaagaggcc
 960
 aattctaagc aaaatataac aaaacgagaa gtggaggatg acttggttct tagcatgctg
 1020
 attgactccc agaacaacca gtatatattg accaagccca gagattcaac catcccacgt
 1080
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 1140
 tggcgatgta ca
 1152

<210> 5612

<211> 289

<212> PRT

<213> Homo sapiens

<400> 5612

Met	Lys	Val	Leu	Gly	Arg	Ser	Phe	Phe	Trp	Val	Leu	Phe	Pro	Val	Leu
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Pro	Trp	Ala	Val	Gln	Ala	Val	Glu	His	Glu	Glu	Val	Ala	Gln	Arg	Val
			20					25					30		
Ile	Lys	Leu	His	Arg	Gly	Arg	Gly	Val	Ala	Ala	Met	Gln	Ser	Arg	Gln
		35					40					45			
Trp	Val	Arg	Asp	Ser	Cys	Arg	Lys	Leu	Ser	Gly	Leu	Leu	Arg	Gln	Lys
	50					55					60				
Asn	Ala	Val	Leu	Asn	Lys	Leu	Lys	Thr	Ala	Ile	Gly	Ala	Val	Glu	Lys
65					70					75				80	
Asp	Val	Gly	Leu	Ser	Asp	Glu	Glu	Lys	Leu	Phe	Gln	Val	His	Thr	Phe

[illegible]

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<210> 5613
<211> 1679
<212> DNA
<213> Homo sapiens
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<400> 5613
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120
ctcagacctt gtgggggtcaa gtcggcggtg gaggccttag gctcagcctg tggggaccgg
180
cggggactcg gcctgggcag tcctgggaga agctgagccg gctctgcctg aagccagttc
240
tccttgtcgc aggtgctggt ggacagcgcg gaggaggggt ccctcgctgc ggcggcggag
300
ctggccgctc agaagcgcg aacagagactg cgcaaattcc gggagctgca cctgatgcgg
360
aatgaagctc gtaaatataa tcaccaggaa gttgtggaag aagataaaa actaaaatta
420
cctgcaaat gggaagccaa aaaagctcgt ttggagtggg aactaaagga agaggaaaag
480
aaaaaggaat gtgcggcaag aggagaagac tatgagaaag tgaagttgct ggagatcagt
540
gcagaagatg cagaaagatg ggagaggaaa aagaagagga aaaacctga tctgggattt
600

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tcagattatg ctgctgccca gttacgccag tatcatcggt tgaccaagca gatcaaacct
 660
 gacatggaaa catatgagag actgagagaa aaacatggag aagagttttt cccaacatcc
 720
 aatagtcttc ttcattggaac acatgtgcct tccacagagg aaattgacag gatggtcata
 780
 gatctggaaa aacagattga aaaacgagac aaatatagcc ggagacgtcc ttataatgat
 840
 gatgcagata tcgactacat taatgaaagg aatgccaaat tcaacaagaa agctgaaaga
 900
 ttctatggga aatacacagc tgaaattaaa cagaatttgg aaagaggaaac agctgtctaa
 960
 tcccttcaag aactgtttat agaagcttga gaatggggta aaaatttctg ctagcaaaat
 1020
 caagttcttt ttgaaatttt atcagtaatc cagaatttag tagtccatgc cttctcactc
 1080
 agcattttaga aataaaaaatg tgggtttctta aacgtatata ctttcatgta tatttccaca
 1140
 tttttgtgct tggatataag atgtatttct tgtagtgaag ttgttttgta atctactttg
 1200
 tatacattct aattatatta tttttctatg tattttaaat gtatatggct gtttaattct
 1260
 tgaagcattt tgggcttaag attgccagca gcacacatca gatgcagtca ttgttgctat
 1320
 cagtgtggaa tttgatagag tctagactcg ggccacttgg agttgtgtac tccaaagcta
 1380
 aggacagtga tgaggaagat ggcagtggcc accggaggac tggagcagtc cctcctcatg
 1440
 gcggcctgtg accaaggctg gggaggagtg gagctatcct tccatgatct gatcatgtac
 1500
 ttcggagaga ggctggagtg tgctaccgac gtcgaatata catgcagtgc gttagaggct
 1560
 ggagtgtgct accgacgtcg aatatccatg cagactagaa aaccattat ctcagcccaa
 1620
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 1679

<210> 5614

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5614

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 20 25 30
 Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Asn Glu Ala Arg Lys
 35 40 45
 Leu Asn His Gln Glu Val Val Glu Glu Asp Lys Arg Leu Lys Leu Pro
 50 55 60
 Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu Lys Glu
 65 70 75 80
 Glu Glu Lys Lys Lys Glu Cys Ala Ala Arg Gly Glu Asp Tyr Glu Lys

[illegible]

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<210> 5615
<211> 1522
<212> DNA
<213> Homo sapiens
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400> 5615
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120
ccacagactg ttccttcaca accgtccagt agtactgtcc ctcctccacc acacagacct
180
ctttatcagc ctatgcagcc tcctcctcag catttggtt ctatgggttt tgatccaagg
240
tggctcatga tgcagtccta catggatcct cgaatgatgt caggaagacc tgctatggat
300
attccaccca ttcctcctgg aatgattcct cctaaaccat taatgagaag agaccagatg
360
gaagggtcac cgaacagttc tgagtcattt gagcatatag ctgcgatctgc aagagatcac
420
gcaatttccc tttctgagcc tcgtatgctg tgggggtcag atccctatcc tcatgctgag
480
cctcaacaag caactactcc caaagcaaca gaagagcctg aggatgtaag gtctgaagct
540
gcgttggacc aggaacagat tactgctgct tattctgtag aacataatca attagaggct
600
cacccaaagg cagactttat cagagaatca agtgaggcac aagtacaaaa gtttttaagc
660
agatctgtgg aagatgttag acctcaccat actgatgcaa ataatcagtc tgcttgtttt
720
gaagcacctg atcaaaaagac cttatccact cctcaagagg agcggatttc agctgtagaa
780

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agtcagcctt cccgaaaaag aagtgtttcc catggatcta accatacgca aaaaccagac
 840
 gagcagagaa gtgaaccatc tgcaggcatt cctaaagtaa ccagcagatg cattgattca
 900
 aaagaaccaa tagaaaggcc agaggagaaa ccaaaaaagg aaggctttat acgatcttct
 960
 gaaggaccaa aacctgaaaa agtatataaa tctaaatcag aaactcgttg gggcccacga
 1020
 ccaagctcta acagaaggga agaagttaat gatagacctg tgagaagatc aggtccatt
 1080
 aaaaaacctg tacttagaga tatgaaagag gaacgggaac agaggaagga gaaagaagga
 1140
 gaaaaggccg aaaaggtcac tgaaaaagta gttgtaaagc ctgaaaagac ggaaagaag
 1200
 gatcttcttc ctccccacc accacctcag ccaccagcac caattcagcc acagtcagtt
 1260
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 1320
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 1380
 cctgcagtta agactgtaaa ccaacagact atggcagcac cagtagtcaa agaaaaagaa
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 1500
 gaaaaagaac tacaaaaaaa aa
 1522

<210> 5616
 <211> 507
 <212> PRT
 <213> Homo sapiens

<400> 5616
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 20 25 30
 Gln Gln Gln Gln Gln Gly Val Leu Pro Gln Thr Val Pro Ser Gln Pro
 35 40 45
 Ser Ser Ser Thr Val Pro Pro Pro Pro His Arg Pro Leu Tyr Gln Pro
 50 55 60
 Met Gln Pro His Pro Gln His Leu Ala Ser Met Gly Phe Asp Pro Arg
 65 70 75 80
 Trp Leu Met Met Gln Ser Tyr Met Asp Pro Arg Met Met Ser Gly Arg
 85 90 95
 Pro Ala Met Asp Ile Pro Pro Ile His Pro Gly Met Ile Pro Pro Lys
 100 105 110
 Pro Leu Met Arg Arg Asp Gln Met Glu Gly Ser Pro Asn Ser Ser Glu
 115 120 125
 Ser Phe Glu His Ile Ala Arg Ser Ala Arg Asp His Ala Ile Ser Leu
 130 135 140
 Ser Glu Pro Arg Met Leu Trp Gly Ser Asp Pro Tyr Pro His Ala Glu
 145 150 155 160
 Pro Gln Gln Ala Thr Thr Pro Lys Ala Thr Glu Glu Pro Glu Asp Val

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      165      170      175
Arg Ser Glu Ala Ala Leu Asp Gln Glu Gln Ile Thr Ala Ala Tyr Ser
      180      185      190
Val Glu His Asn Gln Leu Glu Ala His Pro Lys Ala Asp Phe Ile Arg
      195      200      205
Glu Ser Ser Glu Ala Gln Val Gln Lys Phe Leu Ser Arg Ser Val Glu
      210      215      220
Asp Val Arg Pro His His Thr Asp Ala Asn Asn Gln Ser Ala Cys Phe
      225      230      235      240
Glu Ala Pro Asp Gln Lys Thr Leu Ser Thr Pro Gln Glu Glu Arg Ile
      245      250      255
Ser Ala Val Glu Ser Gln Pro Ser Arg Lys Arg Ser Val Ser His Gly
      260      265      270
Ser Asn His Thr Gln Lys Pro Asp Glu Gln Arg Ser Glu Pro Ser Ala
      275      280      285
Gly Ile Pro Lys Val Thr Ser Arg Cys Ile Asp Ser Lys Glu Pro Ile
      290      295      300
Glu Arg Pro Glu Glu Lys Pro Lys Lys Glu Gly Phe Ile Arg Ser Ser
      305      310      315      320
Glu Gly Pro Lys Pro Glu Lys Val Tyr Lys Ser Lys Ser Glu Thr Arg
      325      330      335
Trp Gly Pro Arg Pro Ser Ser Asn Arg Arg Glu Glu Val Asn Asp Arg
      340      345      350
Pro Val Arg Arg Ser Gly Pro Ile Lys Lys Pro Val Leu Arg Asp Met
      355      360      365
Lys Glu Glu Arg Glu Gln Arg Lys Glu Lys Glu Gly Glu Lys Ala Glu
      370      375      380
Lys Val Thr Glu Lys Val Val Lys Pro Glu Lys Thr Glu Lys Lys
      385      390      395      400
Asp Leu Pro Pro Pro Pro Pro Pro Pro Gln Pro Pro Ala Pro Ile Gln
      405      410      415
Pro Gln Ser Val Pro Pro Pro Ile Gln Pro Glu Ala Glu Lys Phe Pro
      420      425      430
Ser Thr Glu Thr Ala Thr Leu Ala Gln Lys Pro Ser Gln Asp Thr Glu
      435      440      445
Lys Pro Leu Glu Pro Val Ser Thr Val Gln Val Glu Pro Ala Val Lys
      450      455      460
Thr Val Asn Gln Gln Thr Met Ala Ala Pro Val Val Lys Glu Lys Glu
      465      470      475      480
Leu Gln Lys Lys Glu Arg Lys Gln Glu Lys Glu Lys Glu Leu Glu Arg
      485      490      495
Gln Lys Glu Lys Glu Lys Glu Leu Gln Lys Lys
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<210> 5617

<211> 3480

<212> DNA

<213> Homo sapiens

<400> 5617

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aataagtttt cgtaggttat actatcattt ttttttctga cttttagaaa aaaaatgatc

120